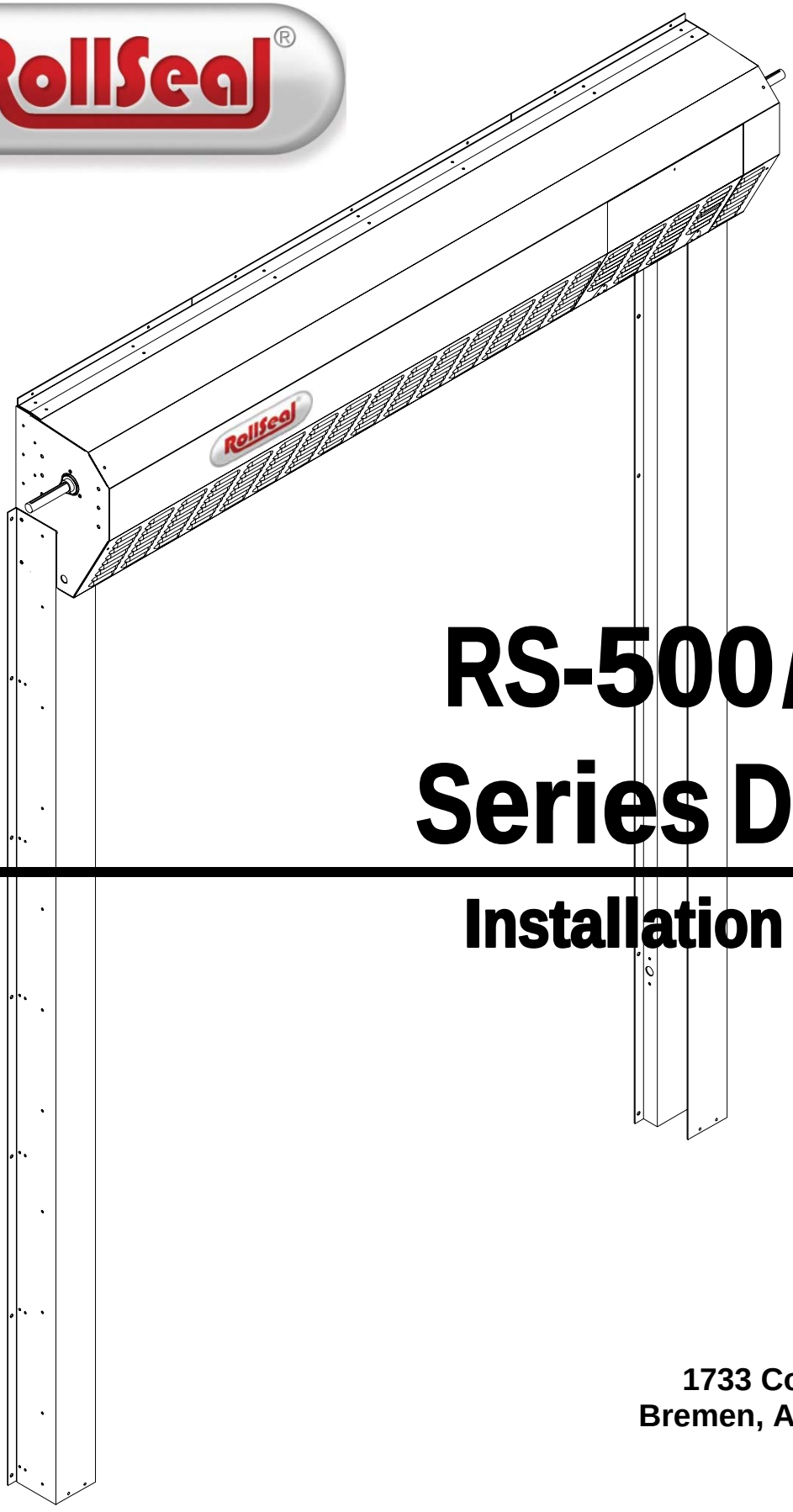


RS-500/600 Series Doors

Installation Manual

RollSeal
1733 County Road 68
Bremen, Alabama 35033
256-287-7000

Table of Contents

1 Warnings (Avertissements) 4

2 Limited Warranty 9

3 Use of Equipment 10

4 Physical Description 10

5 Operator Options 11

6 Differences between a RS-500 and RS-600 Series Door 11

7 Ratings and Specifications 12

8 RS-500 Series Door (Brother Motor) 13

9 RS-600 Series Door (Brother Motor) 14

10 Ratings and Specifications RS-500/600 Series (Manaras Motor) 15

11 RS-500 Series Door with Optional Freezer Kit 16

12 RS-600 Series Door with Optional Freezer Kit 17

13 Installation of RS-500/600 Series Doors 18
- 13.1 Tools Required 18
- 13.2 Overview 18
- 13.3 Adjusting the Door Framing or Clear Opening 18
- 13.4 Attachment Points of Door 19
- 13.5 Assembly of Tracks 20
- 13.6 Assembly of Parts 21
- 13.7 Infrared Sensor Connectors (Brother Motor Option Only) 22
- 13.8 Fastening Door Assembly to Clear Opening 22

14 Mounting Operators to RS-500/600 Series Doors 24

15 Mounting Brother Operator to RS-500/600 Series Door 26

16 Installation of RS-500/600 Series Doors (Freezer Kit Included) 27
- 16.1 Tools Required 27
- 16.2 Overview 27

17 Installation of Condensation Management System and Ducts 28
- 17.1 Connecting the Electrical Power 28

18 Mounting Manual Chain Hoist to RS-500/600 Series Door 29
- 18.1 First Safety Bracket 29
- 18.2 Removal of Second Safety Bracket 29
- 18.3 Chain Hoist Installation 30

19 Connecting Electrical Power to RS-500/600 Series Doors 31

20 Operation of RS-500/600 Series Doors 31
- 20.1 Limit Switches 32

21 RS-500/600 Series Door Wiring Diagram (Brother Motor Only) 33

22 RollSeal Smart Controller Wiring Diagram (Brother Motor Only) 34

23 Operation of RS-500/600 Series Door with Freezer Kit Included 35
23.1 SC-325 and SC-650 Program Setup for Freezer Mode 35
23.2 Open and Close Door 37

24 RS-500/600 Series Door Condensation Management System Wiring Diagram 38

25 Manual Operation RS-500/600 Series Door (Brother Motor Only) 39
25.1 Operating Instructions 39

26 Adjustment of Brake (Brother Motor Only) 40

27 Operation of RS-500/600 Series with Manaras Motor Option. 41
27.1 Limit Switches. 41
27.2 Adjustment of Limit Switches 42
27.3 Wiring Options to the Manaras Operator Terminal Block 43
22.3 Switch Operation of Door with Manaras Operator 44

28 Manual Operation Manaras Operator 44

29 Operation of RS-500/600 Series with Manual Chain Hoist Option 45

30 Emergency Egress (Optional Feature) 46
30.1 Installation 46
30.2 Exiting (Opening) The Door 46
30.3 Resetting (Closing) The Door 47

31 Egress Strap Removal/Re-Installation 48
31.1 Removal 48
31.2 Installation 48

32 Door Panel Adjustments 49

33 Removal of Existing Panel 50

34 Installation of Replacement Panel 50

35 Removing and Replacing Floating Magnets or Velcro 52

36 Wiring Optional Accessories 57
36.1 Wiring Falcon XL and EX Motion Detectors 57
36.2 Wiring Falcon IS40 Infrared and Microwave Sensor 57
36.3 Wiring the IRIS Infrared and Microwave Sensor 58
36.4 Wiring the Matrix2 Loop Sensor 58
36.5 Wiring Switches and Remote Receiver 59

37 Replacement and Optional Parts 60
37.1 SC-325 Controller 60
37.2 SC-650 Controller 61
37.3 Door Replacement Parts and Accessories 61

1 Warnings (Avertissements)

Warning!

Disconnect All Power Sources Before Installing This Equipment. Failure To Disconnect Power Source Can Result In Property Damage, Serious Injury Or Death!

Warning!

Dangerous Rotating Machinery!
Keep Hands, Clothing, Etc. Clear When Operating!
Do Not Operate Without All Guards And Covers In Place!

Warning!

All Wiring Should Be In Accordance with National Electrical Codes Or Other Local Codes.

Warning!

The Installer Is Responsible For Complying With All Relevant Regulations,
Such As National Wiring Regulations And Accident Prevention Regulations.
Particular Attention Must Be Given To The Cross-sectional Areas Of Conductors, The Selection Of Fuses Or Other Protection, And Protective Earth/Ground Connections!

Warning!

The Voltages In The Power Cables And Certain Parts Of The Drive Can Result In Death.
Whenever The Drive Has Been Used, It Must Be Isolated And Disconnected
For 5 Minutes Before Any Work Commences.

! Danger!

Only Qualified Electrical Personnel Familiar With The Construction And Operation Of This Equipment And The Hazards Involved Should Install, Adjust, And/Or Service This Equipment.
Read And Understand This Manual In Its Entirety Before Proceeding.
Failure To Observe This Precaution Could Result In Severe Bodily Injury Or Death!

! Warning!

WARNING
(AVERTISSEMENT)
Moving Door Can Cause Serious Injury or Death
(La porte en mouvement peut causer blessure sérieuse ou mort.)
Keep Clear! Door May Move at any Time Without Prior Warning.
(Espace libre de subsistance! La porte mai se mouvoir n'importe quand sans avertissement antérieur.)
Do Not Let Children Operate the Door or Play in the Door Area.
(Ne laissez pas enfants opérer la porte ou jeu dans l'aire de porte.)
Keep Door in Sight at all Times When Door is Moving.
(Porte de subsistance dans vue en tout temps quand la porte se meut.)
4501-6312

Item 4501-6312
(Warning Moving Door Label)
Supplied With Door,
MUST Be Installed
On Inside Of Cooler/Freezer
Beside Door Opening.

IMPORTANT INSTALLATION INSTRUCTIONS

! Warning!

To Reduce The Risk Of Severe Injury Or Death:

1. READ AND FOLLOW ALL INSTALLATION INSTRUCTIONS.
2. Do not connect the door operator to the source of power until instructed to do so.
3. Locate the control station: (a) within sight of the door, (b) at a minimum height of 5 feet so small children cannot reach it, and (c) away from all moving parts of the door. Remove all ropes and remove or make inoperative all locks connected to the garage door before installing opener.
4. For products having a manual release, instruct the end user on the operation of the manual release. Where possible, install the door opener 7 feet or more above the floor. For products having an emergency release, mount the emergency release within reach, but at least 6 feet above the floor and avoiding contact with vehicles to avoid accidental release.

IMPORTANT SAFETY INSTRUCTIONS

! Warning!

To Reduce The Risk Of Severe Injury Or Death:

1. READ AND FOLLOW ALL INSTRUCTIONS!
2. Never let children operate or play with door controls. Keep the remote control (where provided) away from children.
3. Personnel should keep away from a door in motion and keep the moving door in sight until it is completely closed or opened. NO ONE SHOULD CROSS THE PATH OF A MOVING DOOR.
4. Test the door's safety features at least once a month. After adjusting either the speed or the limit of travel, retest the door operator's safety features. Failure to adjust the operator properly may cause severe injury or death. NEVER GO UNDER A STOPPED, PARTIALLY OPEN DOOR.
5. For products having a manual release, if possible, use the manual release only when the door is closed. Use caution when using this release when the door is open.
6. KEEP DOORS PROPERLY OPERATING AND BALANCED. See Door Manufacturer's Owner's Manual. An improperly operating or balanced door can cause severe injury or death. Have trained door systems technician make repairs to cables, spring assemblies, and other hardware.
7. Install the Entrapment Warning label next to the control button in a prominent location. Install the Emergency Release Marking. Attach the marking on or next to the emergency release.
8. After installing the opener, the door must reverse when it contacts a 1-1/2 inch high object (or a 2 x 4 board laid flat) on the floor.
9. SAVE THESE INSTRUCTIONS.

French Translated Warnings

! Avertissement!

Disjoindre fournissent de l'énergie tout les sources avant qu'installer cet équipement. F|ailure| à disjoindre la source de pouvoir peut résulter dans dommage de propriété, blessure sérieuse ou mort !

! Avertissement !

Mécanisme tournant dangereux !
Garder les mains, vêtissant, etcC|lear| quand fonctionner !
Ne fonctionnez pas sans toutes gardes et couvertures dans lieu !

! Avertissement !

Tout montage sur fil de fer doit être selon codes électriques nationaux ou autres indicatifs régionaux.

! Avertissement !

L'Installer est responsable pour conformer avec tout règlement pertinent, telles que règlement et règlement de prévention d'accident de montage sur fil de fer nationaux. Pl'attention articulaire doit être donnée pour les aires sectionnelles transversales de conducteurs, le choix d'elles fusées ou autre protection, et terre / prises de terre protecteur !

! Avertissement !

Les tensions dans le pouvoir câblent et certains parties de la promenade en voiture peuvent résulter dans la mort. Wle |henever| la promenade en voiture a été utilisé il doit être isolé et détaché pendant 5 procès avant que tout travail commence.

! Danger !

Seulement familier électrique de personnel qualifié avec la construction et opération de cet équipement et les hasards ont enveloppé devoir installer, arranger, et/ou - la révision cet équipement. R|ead| et comprendre ce manuel en entier avant que procéder. F|ailure| à observer cette précaution peut résulter dans dommage corporel sévère ou mort !

! Avertissement !

WARNING
(AVERTISSEMENT)
Moving Door Can Cause Serious Injury or Death
(La porte en mouvement peut causer blessure sérieuse ou mort.)
Keep Clear! Door May Move at any Time Without Prior Warning.
(Espace libre de subsistance! La porte mai se mouvoir n'importe quand sans avertissement antérieur.)
Do Not Let Children Operate the Door or Play in the Door Area.
(Ne laissez pas enfants opérer la porte ou jeu dans l'aire de porte.)
Keep Door in Sight at all Times When Door is Moving.
(Porte de subsistance dans vue en tout temps quand la porte se meut.)
4501-6312

Point 4501-6312
(Avertissement Moving étiquette de porte)
Livré avec porte,
doit être installé à
l'intérieur du réfrigérateur / congélateur
côté Ouverture de la porte.

LES INSTRUCTIONS D'INSTALLATION IMPORTANTES

! AVERTISSEMENT!

À réduire le risque de blessure sévère ou mort:

1. LU ET SUIVENT TOUTES INSTRUCTIONS D'INSTALLATION.
2. Ne liez pas l'opérateur de porte per la source de pouvoir jusqu'à instruit faire ainsi.
3. Localisez la station de commande: (a) en vue de la porte, (b) à un minimum la hauteur de 5 pieds ainsi petit enfants ne peuvent pas l'atteindre, et (c) loin de tous parties en mouvement de la porte.
4. Pour produits ayant un délivrance manuelle, instruire l'utilisateur final sur l'opération de la délivrance manuelle.

RÈGLEMENTS DE SÉCURITÉ IMPORTANTS

! AVERTISSEMENT!

À réduire le risque de blessure sévère ou mort:

1. LU ET SUIVENT TOUTES INSTRUCTIONS!
2. Jamais laisser fonctionner enfants ou mouvoir vivement avec les autorités de porte. Gardez la télécommande (où a fourni) loin des enfants.
3. Le personnel devrait garder loin une porte dans mouvement et subsistance la porte en mouvement dans vue jusqu'à est complètement fermé ou avoir ouvert. CES AUCUNS DOIVENT CROISER LE CHEMIN D'UNE PORTE EN MOUVEMENT.
4. Éprouvez les traits de sécurité de la porte au moins une fois par mois. Après qu'arrangeant la vitesse ou la fin de course, retest les traits de sécurité de l'opérateur de porte. Manque à arranger l'opérateur correctement peut causer blessure sévère ou mort.
5. Pour produits ai manuel la délivrance, si possible, utiliser la délivrance manuelle seulement quand la porte est fermée. Précaution d'utilisation à utiliser cette délivrance quand la porte est ouverte.
6. GARDER LES PORTES CORRECTEMENT QUI OPÈRE ET ÉQUILIBRÉ. Voir la porte fabricant propriétaire manuel. Un improprement qui opère ou balancé porte peut causer blessure sévère ou mort. Formez les technicien de systèmes de porte faitez les réparations per les câbles, réunions de source, et autre quincaillerie.
7. SAUVEZ CES INSTRUCTIONS.

2 Limited Warranty

All products are warranted to be free from defects in material and workmanship for a period of one (1) year or 100,000 cycles, whichever occurs first, from the date of purchase if installed and used in strict accordance with the installation instructions. Liability is limited to the sale price of any products proved to be defective or, at manufacturers' option, to the replacement of such products upon their return. No products are to be returned to the manufacturer, until there is an inspection and/or a return-goods authorization (RGA) number is issued.

All complaints should be directed first to the authorized distributor who sold the product. If satisfaction is not obtained or the name of the distributor is not known, write the manufacturer that appears below, directed to the attention of Customer Service Manager.

This limited warranty is expressly in lieu of any and all representations and warranties expressed or implied, including any implied warranty of merchantability or fitness for a particular purpose. The remedy set forth in this limited warranty shall be the exclusive remedy available to any person. No person has authority to bind the manufacturer to any representation or warranty other than this limited warranty. The manufacturer shall not be liable for any consequential damages resulting from the use of our products or caused by any defect, failure or malfunction of our products. (Some areas do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.)

This warranty gives you specific legal rights and you may also have other rights that vary from area to area.

Warrantor:
RollSeal
1733 County Road 68
Bremen, Al 35055
256-287-7000

3 Use of Equipment

The RS-500/600 Series Doors are motorized curtain enclosures for environmental control, banana rooms, docks/warehouses, car and truck washes, agricultural/horticultural, and coolers/freezers.

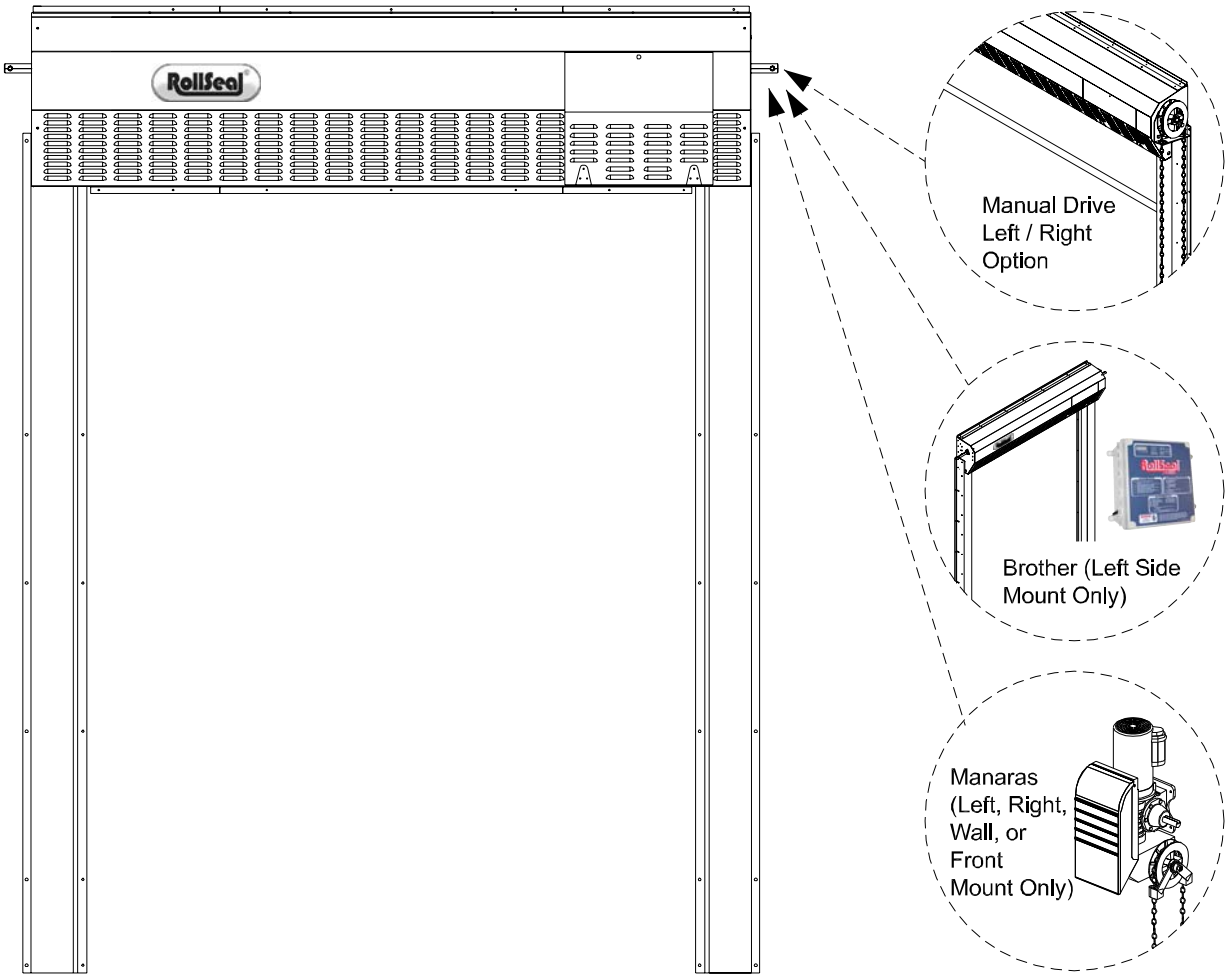
4 Physical Description

The RS-500/600 Series Doors are available with multiple features and options such as:

- **Standard Door Sizes**: Refer to Tables 1-4, RS-500/600 Series Standard Dimensions, pages 11, 14, 15, and 17.
- **Operators**: Manual Chain Hoist, Brother or Manaras Operator.
- **Left/Right/Front Mounting**: The Manaras Operators can be mounted on the left, right or front. The manual chain hoist can be mounted on the left or right side.
- The Operator Mounting Side must be selected at the time of order.
- **Left Mounting Only**: The Brother motor can only be mounted on the left side, the associated controller, on the right side.
- **Manaras Operator Voltage Selection**: 1/2 HP, Single Phase: 115V @ 8.6 amp, 230V @ 4.1 amp. 1/2 HP, 3 Phase: 208V @ 2.2 amp, 460V @ 1.1 amp. 1 HP, Single Phase: 115V @ 13.4 amp, 230V @ 6.7 amp. 1 HP, 3 Phase: 208V @ 3.4 amp, 460V @ 1.7 amp.
- **RS-500 with Brother Motor - Controller Standard Input Voltage 115VAC (Must request 230VAC).**
- **RS-600 with Brother Motor - Controller Standard Input Voltage 230VAC.**
- **Operator Options**: Remote receiver and transmitters, photo safety beams, leading edge switch.
- **Accessories:** Industry standard accessories can be added such as motion sensors, loop detectors, ceiling pull switches, lock-out switches, other various types of switches, and door status / movement indicators such as lights and buzzers.
- **Windows**: 32" high with width varying by width of door panel.
- **Fabric & Fabric Colors**: Frost, white, black, blue, red, tan, green, anti-static, and insect screen.

NOTE: Certain options may only be available with specific operators. **Refer to Section 37, RS-500/600 Door Options and Accessories**.

5 Operator Options



6 Differences between a RS-500 and RS-600 Series Door

	RS-500 Series	**RS-600 Series**
Speed (Brother Motor Option)	Up to 18" Per Sec	Up to 48" Per Sec
Speed (Manaras Motor)	@8-11" Per Sec	@16-22" Per Sec
Motor (Brother)	1/4hp	1/2hp
Motor (Manaras)	1/2hp GH	1hp GH
Drive Pipe	2 ½ inches	6 inches
Head Unit	Small	Large
*Standard Controller Input Voltage (Brother Motor Option)	115VAC	230VAC

***NOTE: When Brother Motor Option is used you can request that a RS-500 Door be wired for 115VAC or 230VAC. The RS-600 is wired for 230 VAC only. This must be done prior to purchase to ensure the door has the correct brake rectifier installed.**

7 Ratings and Specifications

RS-500 Doors					
Part Number	6607-8057	6607-8056	6607-8058	6607-8060	6607-8061
Model Number	SC-325-V01-115	SC-325-V02-0	SC-325-V01-115-W01	SC-325-V01-115-PLUS	SC-325-V01-230-PLUS
Power Supply	115 VAC or 230 VAC 50/6000 Hz Single Phase			115 VAC or 230 VAC 50/6000 Hz Single Phase	230 VAC 50/6000 Hz Single Phase
Temperature Range	32°F - 115°F (0°C – 46°C)				
Inputs	10 Amps @ 115 VAC Single Phase or 6 Amps @ 230 VAC Single Phase			10 Amps @ 115 VAC Single Phase	6 Amps @ 230 VAC Single Phase
Outputs	230 VAC Three Phase 1/4 H.P.				
Drive Setting	Version 01	Version 02	Version 01	Version 01	Version 01
Factory Preset Voltage Switch & Jumper	115 VAC				230 VAC
Switch & Warning Wires with Conduit	N/A		Switch Wiring Option		

Optional Freezer Kit	
DOOR MOTOR: 230 VAC Three Phase, ¼ hp	
CONDENSATION MANAGEMENT SYSTEM (CMS):	Voltage Rating 230 VAC ± 10% 50/6000 Hz Blower 135 Watt Heater 1200 Watt Total Current: 6.0 A @ 230 VAC (Typical) 9.0 A @ 230 VAC (Max.)

RS-600 Doors				
Part Number	6607-8100	6607-8101	6607-8102	6607-8103
Model Number	SC-650-V01-0	SC-650-V02-0	SC-650-V01-W01-PLUS	SC-650-V02-W01-PLUS
Power Supply	230 VAC 50/6000 Hz Single Phase			
Temperature Range	32°F - 115°F (0°C – 46°C)			
Inputs	8 Amps @ 230 VAC Single Phase			
Outputs	230 VAC Three Phase 1/2 H.P.			
Drive Setting	Version 01	Version 02	Version 01	Version 02
Factory Preset Voltage Switch & Jumper	230 VAC			
Switch & Warning Wires with Conduit	N/A		Switch Wiring Option	

8 RS-500 Series Door (Brother Motor)

See Section 7 for Ratings and Specifications.
Motor must be connected through Controller.

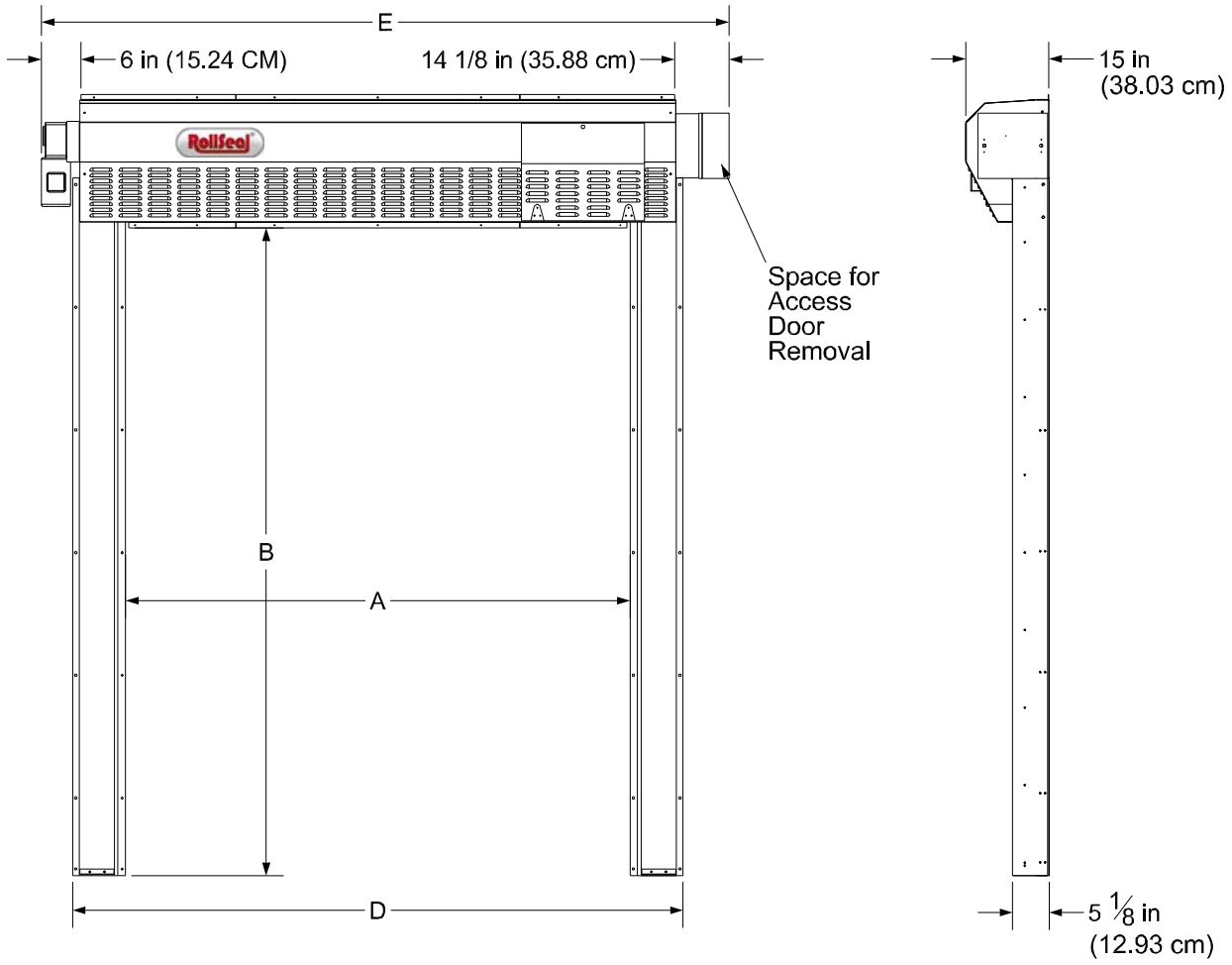


***TABLE 1 RS-500 Door Standard Dimensions*:**

WIDTH Related Dimensions

RS-500 Door Width	A		D		E	
	In.	cm	In.	cm	In.	cm
4'(W)	48	122	64-13/32	164	80-15/16	206
5'(W)	60	153	76-13/32	194	92-15/16	236
6'(W)	72	183	88-13/32	225	104-15/16	267
6'6"(W)	78	198	94-13/23	240	110-15/16	282
7'(W)	84	214	100-13/32	255	116-15/16	297
8'(W)	96	244	112-13/32	286	128-15/16	328
10'(W)	120	305	136-13/32	347	152-15/16	388
11'(W)	132	335	148-13/32	377	164-15/16	419
12'(W)	144	366	160-13/32	408	176-15/16	449

HEIGHT Related Dimensions

RS-500 Door Height	B		C	
	In.	cm	In.	cm
7'(H)	84	214	104-11/16	266
7'6"(H)	90	229	110-11/16	281
8'(H)	96	244	116-11/16	296
9'(H)	108	275	128-11/16	327
10'(H)	120	305	140-11/16	357
11'(H)	132	335	152-11/16	387
12'(H)	144	366	164-11/16	418

9 RS-600 Series Door (Brother Motor)

See Section 7 for Ratings and Specifications.
Motor must be connected through Controller.

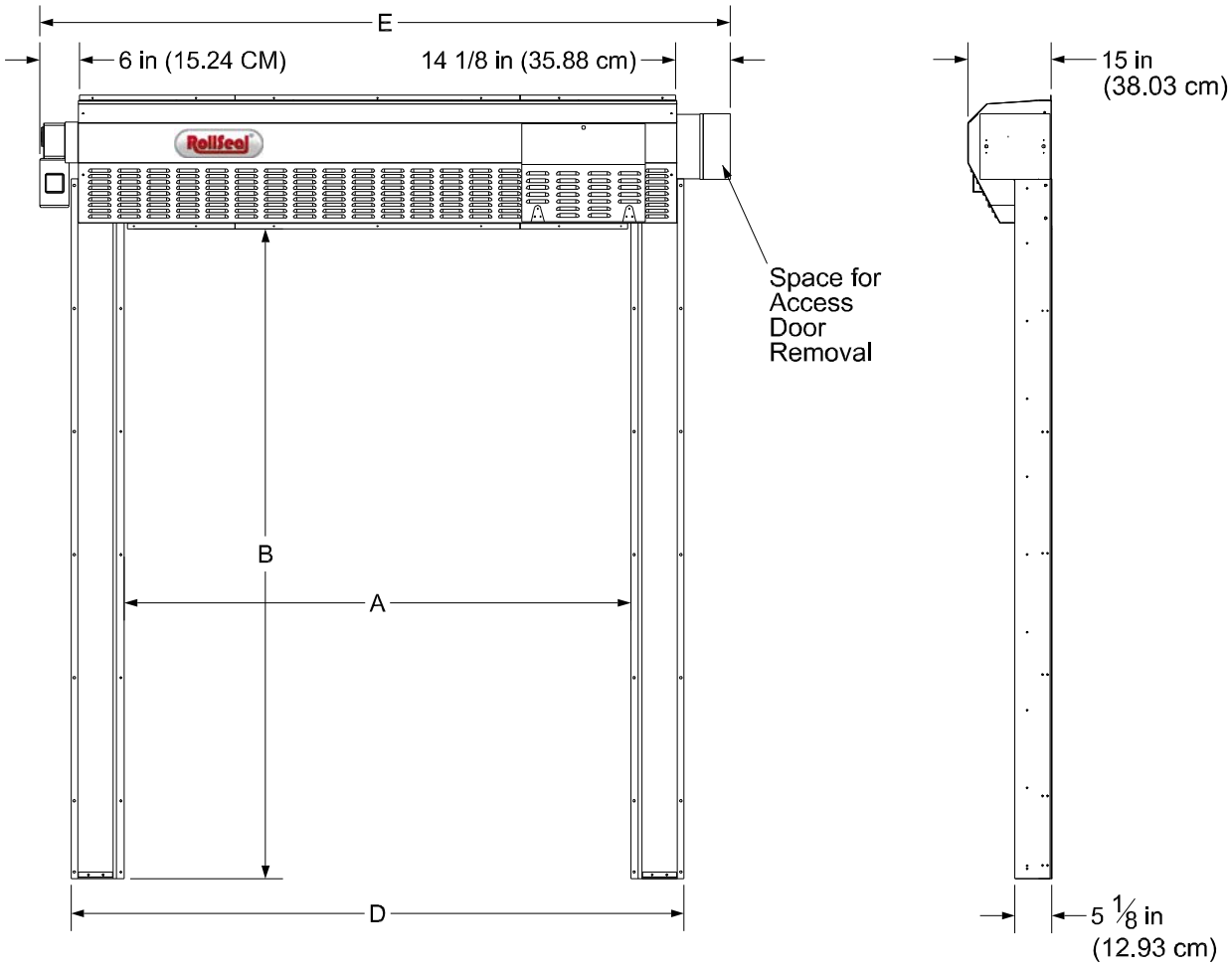


***TABLE 2 RS-600 Door Standard Dimensions*:**

WIDTH Related Dimensions

RS-600 Door Width	A		D		E	
	In.	cm	In.	cm	In.	cm
4'(W)	48	122	64-13/32	164	80-15/16	206
5'(W)	60	153	76-13/32	194	92-15/16	236
6'(W)	72	183	88-13/32	225	104-15/16	267
7'(W)	84	214	100-13/32	255	116-15/16	297
8'(W)	96	244	112-13/32	286	128-15/16	328
9'(W)	108	274	124-13/32	316	140-15/16	358
10'(W)	120	305	136-13/32	347	152-15/16	388

HEIGHT Related Dimensions

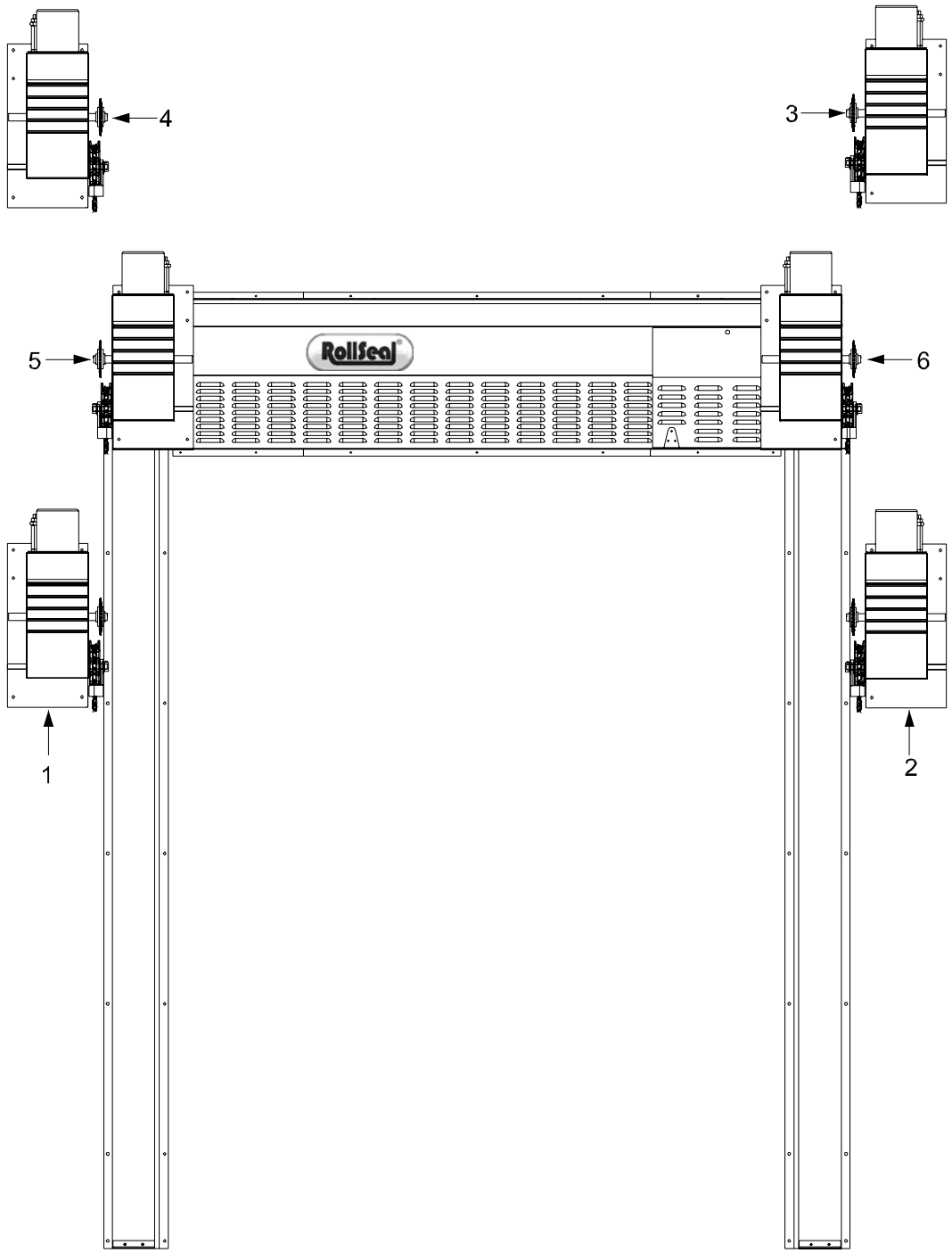
RS-600 Door Height	B		C	
	In.	cm	In.	cm
7'(H)	84	214	92-11/16	266
8'(H)	96	244	104-11/16	296
9'(H)	108	275	128-11/16	327
10'(H)	120	305	140-11/16	357

10 Ratings and Specifications RS-500/600 Series (Manaras Motor)

RS-500 Series Motor Rating 1/2 HP
- 115V Single Phase 8.6 amp
- 230V Single Phase 4.1 amp
- 208V 3 Phase 3.4 amp
- 460V 3 Phase 1.7 amp

RS-600 Series Motor Rating 1 HP
- 115V Single Phase 13.4 amp
- 230V Single Phase 6.7 amp
- 208V 3 Phase 3.4 amp
- 460V 3 Phase 1.7 amp

Motor must be mounted and wired utilizing instructions in this manual and the MANARAS installation and Instruction Manual.



11 RS-500 Series Door with Optional Freezer Kit

See Section 7 for Ratings and Specifications.
Motor must be connected through Controller.

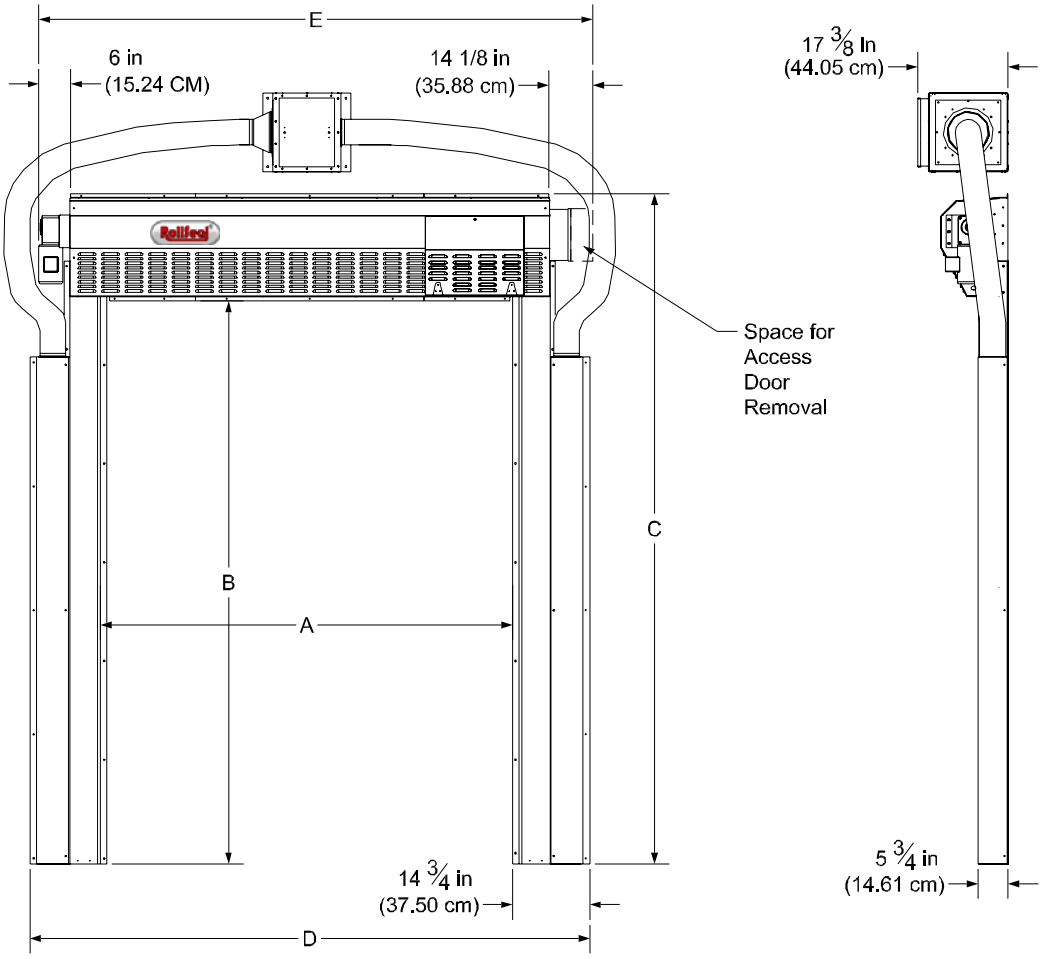


TABLE 3 RS-500 Door with Freezer Kit

WIDTH Related Dimensions

RS-500 Door Width	A		D		E	
	In.	cm	In.	cm	In.	cm
4'(W)	48	122	77-1/2	197	80-15/16	206
5'(W)	60	153	89-1/2	227	92-15/16	236
6'(W)	72	183	101-1/2	258	104-15/16	267
6'6"(W)	78	198	107-1/2	273	110-15/16	282
7'(W)	84	214	113-1/2	288	116-15/16	297
8'(W)	96	244	125-1/2	319	128-15/16	328
10'(W)	120	305	149-1/2	380	152-15/16	388
11'(W)	132	335	161-1/2	410	164-15/16	419
12'(W)	144	366	173-1/2	441	176-15/16	449

HEIGHT Related Dimensions

RS-500 Door Height	B		C	
	In.	cm	In.	cm
7'(H)	84	214	104-11/16	266
7'6"(H)	90	229	110-11/16	281
8'(H)	96	244	116-11/16	296
9'(H)	108	275	128-11/16	327
10'(H)	120	305	140-11/16	357
11'(H)	132	335	152-11/16	387
12'(H)	144	366	164-11/16	418

12 RS-600 Series Door with Optional Freezer Kit

See Section 7 for Ratings and Specifications.
Motor must be connected through Controller.

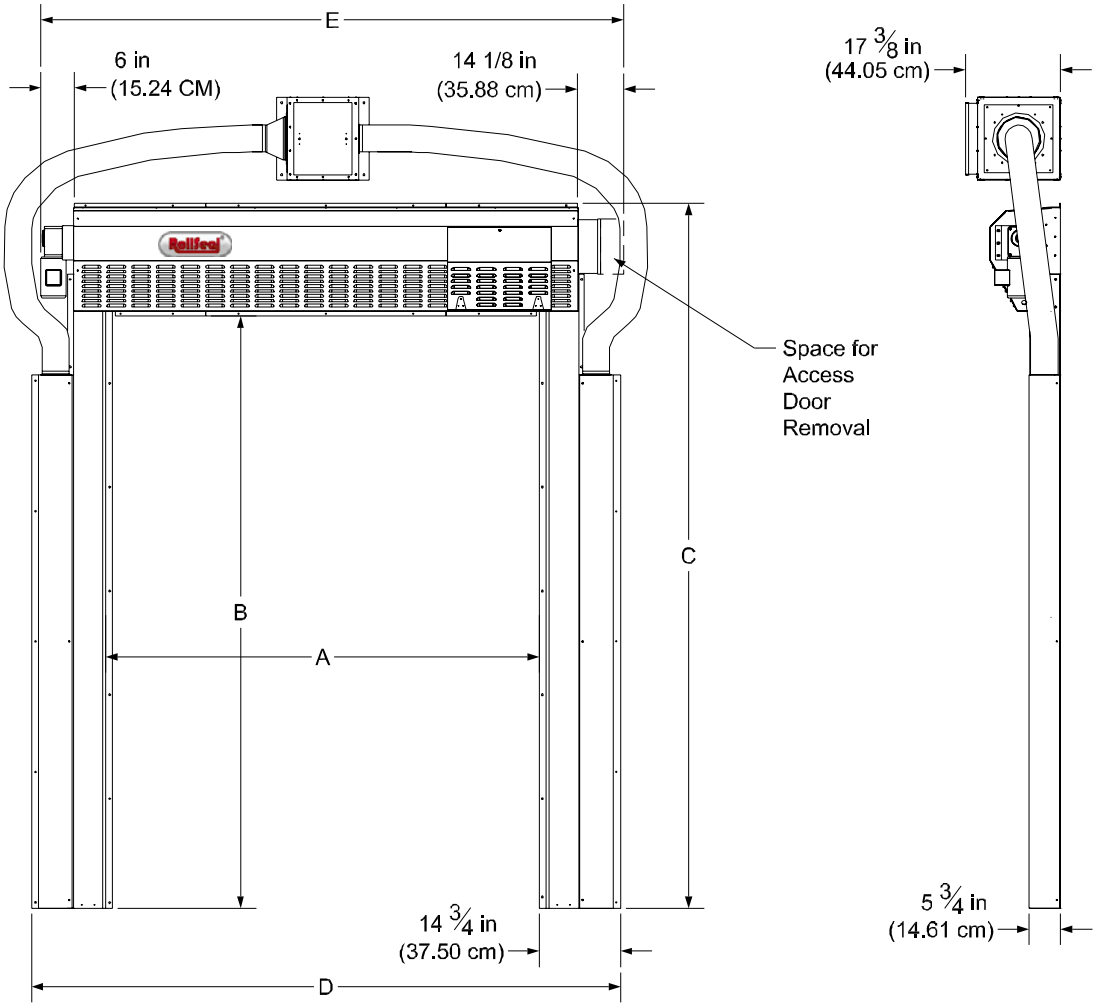


***TABLE 4 RS-600 Door with Freezer Kit Dimensions*:**

WIDTH Related Dimensions

RS-500 Door Width	A		D		E	
	In.	cm	In.	cm	In.	cm
4'(W)	48	122	77-1/2	197	80-15/16	206
5'(W)	60	153	89-1/2	227	92-15/16	236
6'(W)	72	183	101-1/2	258	104-15/16	267
6'6"(W)	78	198	107-1/2	273	110-15/16	282
7'(W)	84	214	113-1/2	288	116-15/16	297
8'(W)	96	244	125-1/2	319	128-15/16	328
10'(W)	120	305	149-1/2	380	152-15/16	388
11'(W)	132	335	161-1/2	410	164-15/16	419
12'(W)	144	366	173-1/2	441	176-15/16	449

HEIGHT Related Dimensions

RS-500 Door Height	B		C	
	In.	cm	In.	cm
7'(H)	84	214	104-11/16	266
7'6"(H)	90	229	110-11/16	281
8'(H)	96	244	116-11/16	296
9'(H)	108	275	128-11/16	327
10'(H)	120	305	140-11/16	357
11'(H)	132	335	152-11/16	387
12'(H)	144	366	164-11/16	418

13 Installation of RS-500/600 Series Doors

13.1 Tools Required

3/8 in. (10 mm) Power screwdriver (portable) 3/16 in. (5 mm) Drill bit and power drill 3/8 x 1 in. Bolts and nuts (supplied)	Socket Hammer Tape measure Carpenter's level
NOTE: Other Tools May Be Required According To Installation.	

13.2 Overview

The RS-500/600 Series doors are shipped with pre-assembled vertical members (left track and right track), and a pre-assembled horizontal member (head unit). Identify components by the Parts/Assemblies section in back of this manual. When components are received, check for damaged, loose or missing parts. If there are damaged or missing parts contact your RollSeal distributor immediately. Please read and understand all instructions in this manual before beginning installation.

13.3 Adjusting the Door Framing or Clear Opening

Locate your particular system in the appropriate **Tables 1-4, pages 11, 14, 15, and 17**. Read the value of height and width of the clear opening for the door size that you are installing. This gives the required dimensions of the clear opening. If necessary, adjust the dimensions of the mounting posts or framing members to the height and width of your RS-500/600 series door system as shown. Refer to **Section 13.4, Page 19, Diagram 13A** for details of attaching door to framing members. Framing material must provide suitable support for attachment of screws. Make sure that mounting posts or framing members are positioned so that the screw holes of the outer flanges of the vertical members will align with the mounting posts or framing members (**Section 13.4, Page 19, Diagram 13A)**.

NOTE: Make sure that there is space for appropriate motor, control box or Condensation Management System (CMS) and freezer tracks (Freezer door option only) without encountering any obstructions during installation. Refer to appropriate cut sheet, pages 15 and 17, and view the appropriate drawing of the door and operator to ensure required footprint.

NOTE: Allow 1' (30.4 cm) minimum, preferably 18" (45.7 cm) clearance above the Head Unit for future panel maintenance or replacement.

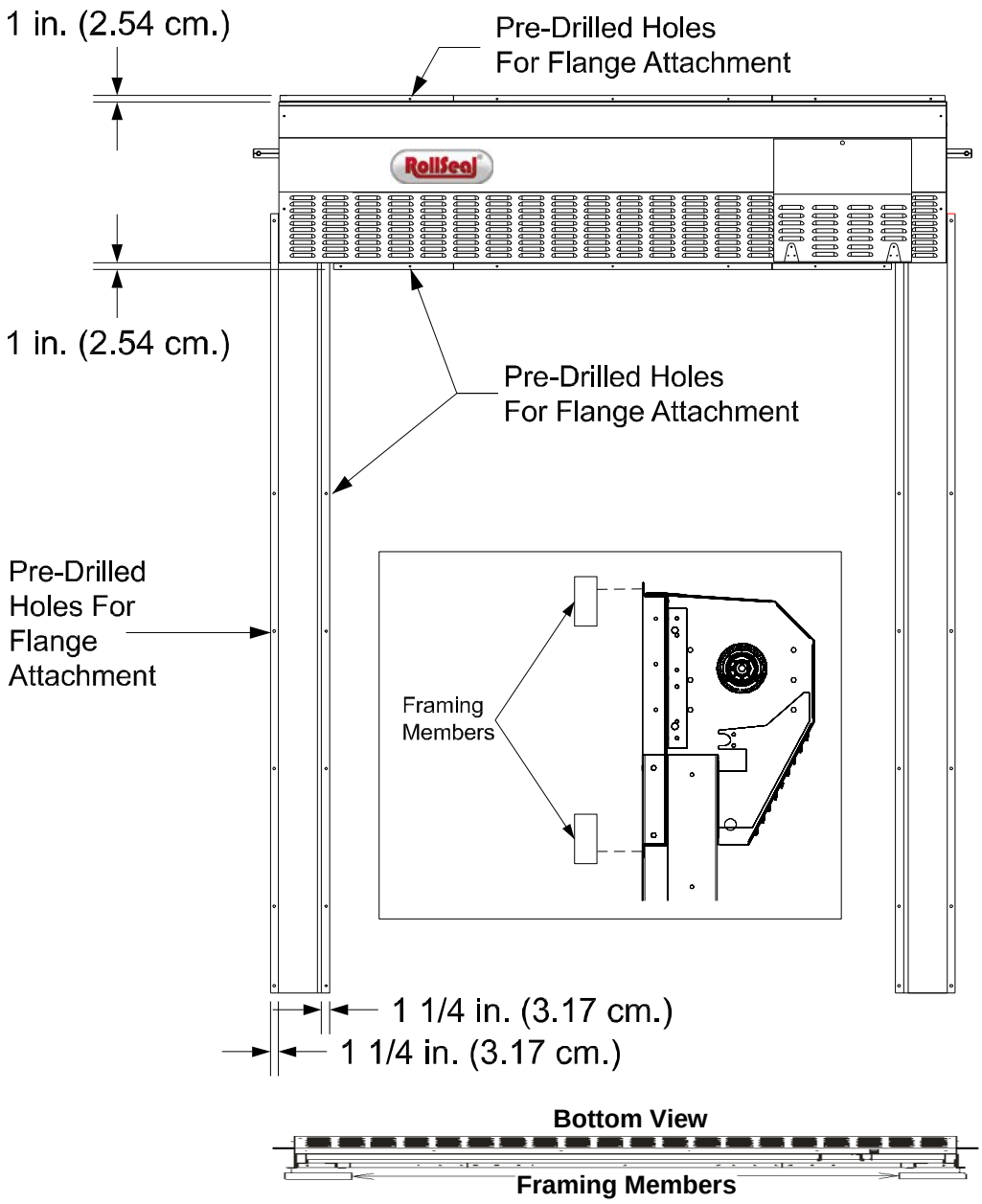
13.4 Attachment Points of Door

When sizing the clear opening for attachment of the door, pay close attention to the following guidelines. Door flanges have pre-drilled holes that serve as mounting points of door.

Flange widths are shown in **Diagram 13A**.

1. Make sure that door assembly is plumb & square.
2. The top unit has a top flange and a bottom flange. Make sure these flanges overlap framing.
3. The vertical members have inner flanges and outer flanges. The outer flanges have pre-drilled holes that serve as attachment points. Make sure the outer flanges overlap framing.
4. When door is raised in front of clear opening (**Section 13.8, Page 22**), Diagram flanges must be flush against framing for attachment of screws.

Diagram 13A



13.5 Assembly of Tracks

1. Arrange the Top and Bottom Tracks so that they can be assembled. **See Diagram 13B.**
2. Slide the Bottom Track into the Top Track so that the Tracks butt together on the Splice Bracket and Splice Plate. **See Diagram 13C**.
3. Note that the Tracks butt together inside the Track Bracket and butt together on top of the Track Plate.
4. Bolt the Tracks together. Check that ALL bolts in the Splice Bracket and Splice Plate are properly tightened.

Diagram 13B

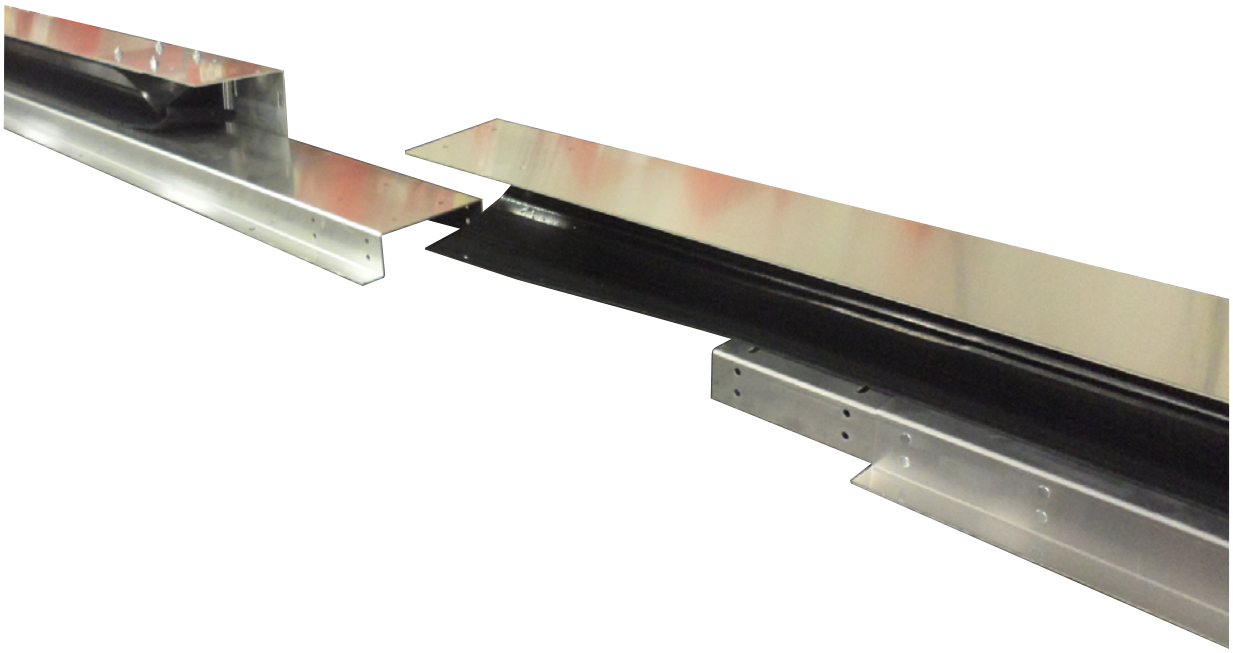
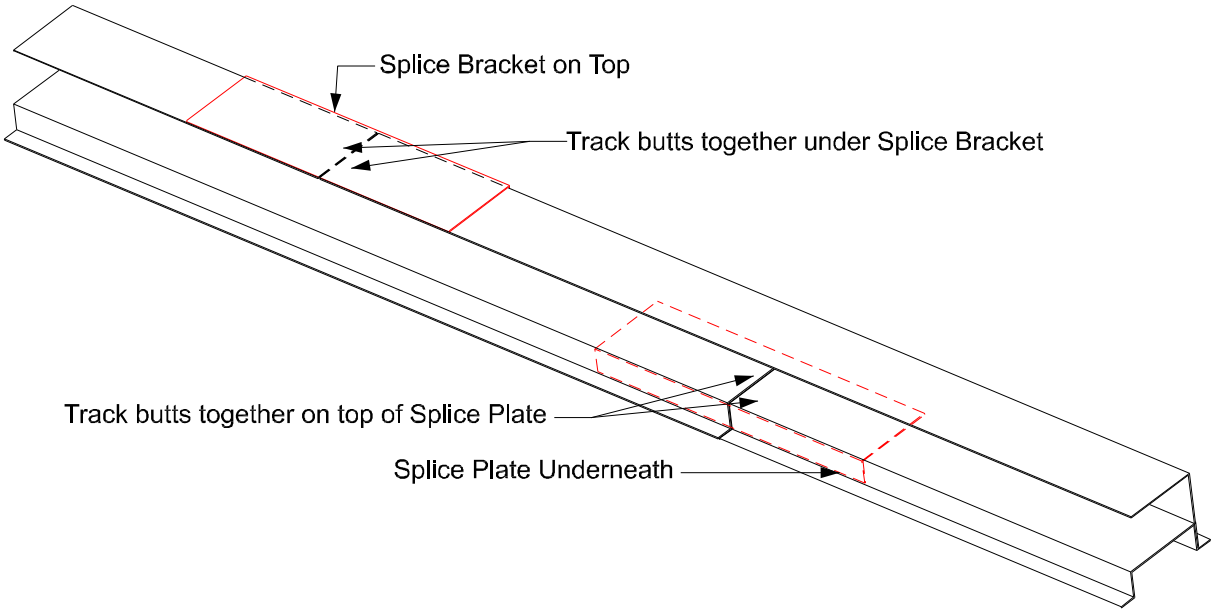


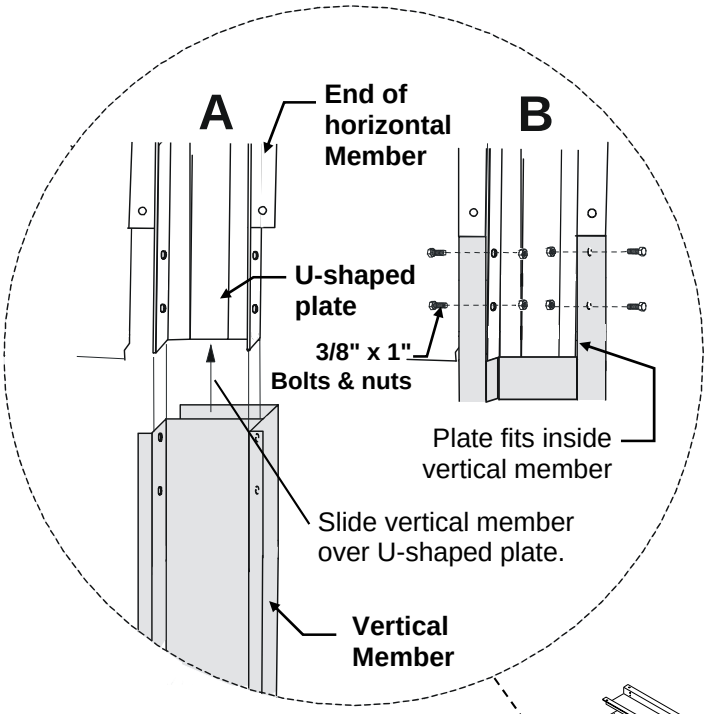
Diagram 13C


Splice Bracket on Top
Track butts together under Splice Bracket
Track butts together on top of Splice Plate
Splice Plate Underneath

13.6 Assembly of Parts

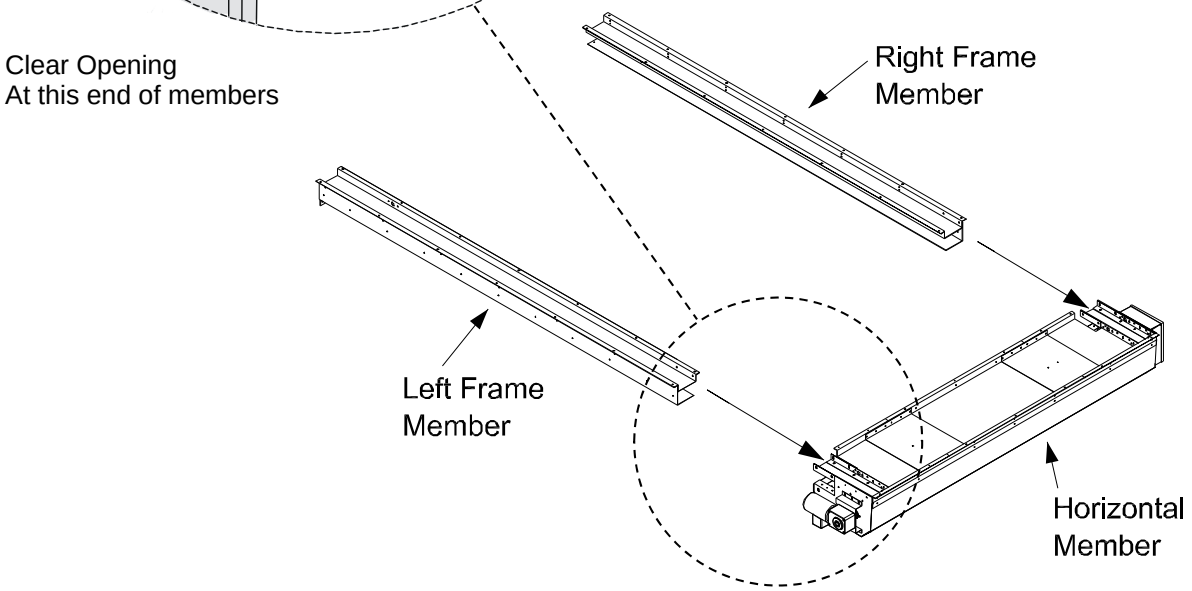
Arrange the horizontal member, left vertical member (left track), and right vertical member (right track) on the floor in front of the clear opening as shown in **Diagram 13D**. The curtain side of the horizontal member and each vertical member faces down.

Diagram 13D



On each end of the horizontal member is a U-shaped plate that fits inside each vertical member. The U-shaped plate has four bolt holes, two on the inside and two on the outside flanges that match bolt holes in the vertical member. See diagram at left.

1. Align the vertical member with the U-shaped metal plate at end of horizontal member.
2. Slide the vertical member onto the outside of the U-shaped metal plate of the horizontal member as shown in A.
3. Insert bolts through bolt holes as shown in B. Install nuts. Tighten bolts & nuts securely.



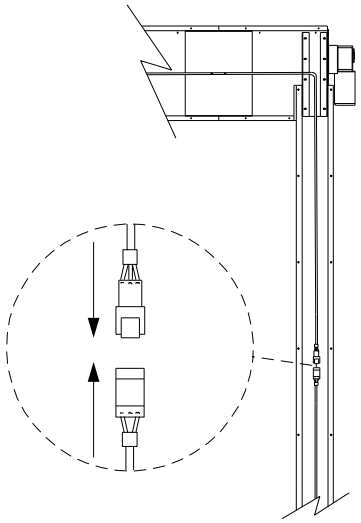
Placement of Parts for Assembly
Lay left track, right track, and horizontal member face down in front of the clear opening as shown.

13.7 Infrared Sensor Connectors (Brother Motor Option Only)

Located at the bottom of each vertical member is an infrared detector. The detector on each vertical member operates as a safety device if the infrared beam is interrupted. Door can be set to stop if beams are broken while closing or to stop and reverse to the full open position. Refer to the RollSeal SC-325 and SC-650 Controller Manual for more information.

1. Locate female connector on vertical member. This connector is attached to the infrared detector.
2. Locate male connector on horizontal member. Unroll cable until connectors meet. **Pull enough slack to create a service loop, such that connectors can be pulled out of tracks for photo eye replacement and troubleshooting purposes.**
3. Plug connectors together. Make sure connectors interlock.
4. Repeat for both infrared detectors.
5. Cable ties and adhesive mounts are supplied to secure wire to the inside of tracks.

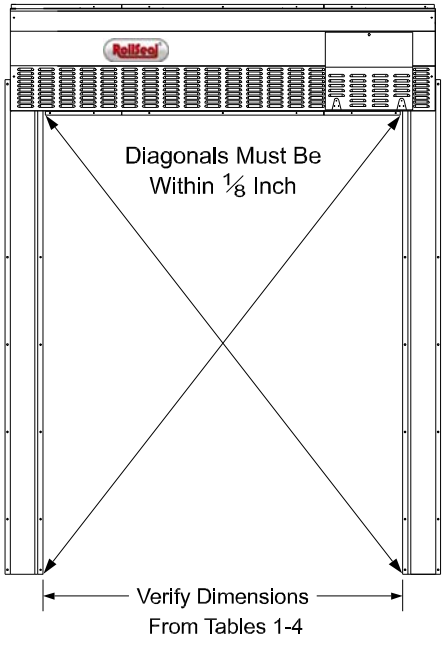
Diagram 13E



NOTE: For each vertical member, unroll respective sensor cable attached to horizontal member until cable reaches the sensor connector attached to the vertical member. Pull enough slack for photo eyes replacement and troubleshooting purposes.

13.8 Fastening Door Assembly to Clear Opening

Diagram 13F



1. Use a tape measure and make sure that the overall height and overall width of the clear opening meet the requirements: Overall Height = Height + 20.688 in. (52.55 cm), Overall Width = Width + 16.4 in. (41.66 cm). Reference appropriate Table 1-4, pages 11, 14, 15, and 17.

2. Make sure that door assembly is plumb & square. **See Diagram 13F**.

3. Center door assembly on clear opening. Align the bottom of each vertical member with the respective framing board or posts of the clear opening.

NOTE: The vertical members should be aligned so that their outer flanges will exactly overlap with the framing boards or posts when the door assembly is raised into position.

4. Assemble workers and equipment into position on each side of the door assembly.

IMPORTANT: SLOWLY LIFT TOP OF DOOR ASSEMBLY TO RAISE THE DOOR. See Diagram 13G.

Diagram 13G

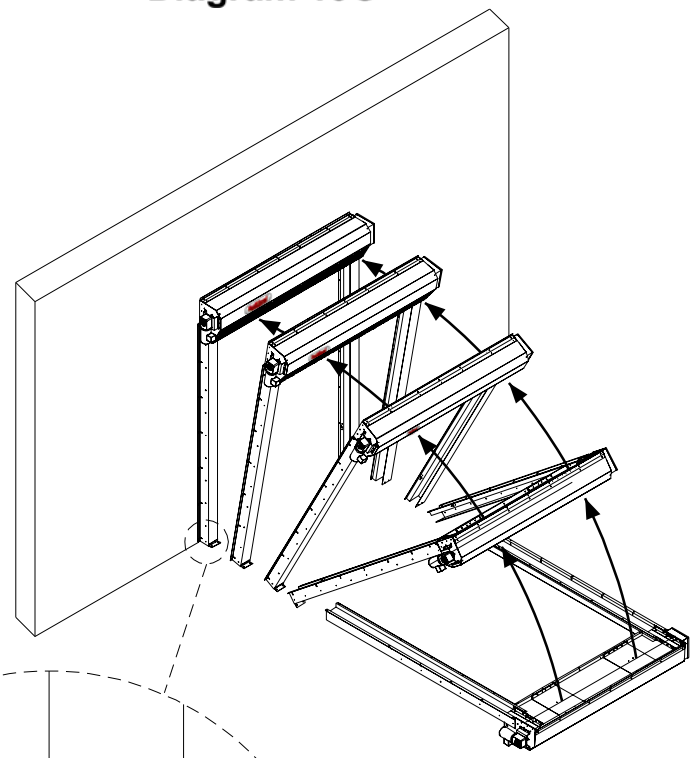
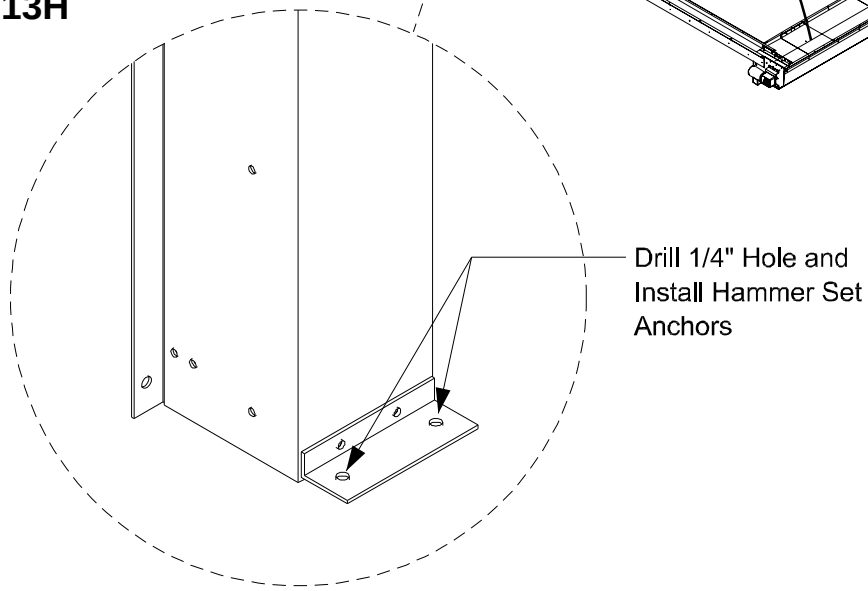


Diagram 13H



5. Lean door assembly upright against clear opening.
6. Carefully press flanges of the door assembly flush against faces of framing boards or posts.
7. Fasten Tek screws (in steel) or lag screws (in wood) through the flanges on sides of door assembly. Securely tighten all screws.
8. On the lower and upper flanges of the horizontal member there are attachment points for fastening screws. Fasten Tek screws (in steel) or lag screws (in wood) through the holes. This secures the top of the door to the clear opening.
9. Locate the two floor mounting holes at the bottom of the left and right tracks. **See Diagram 13H**.
10. Drill a 1/4" hole and install Hammer Set Anchors (1002-6030) in both right and left tracks. See Diagram 13H.
11. This completes fastening of the door assembly to the clear opening.

14 Mounting Operators to RS-500/600 Series Doors

Mounting Manaras Operator to RS-500/600 Series Doors – The next few pages explains specific information with regards to mounting a Manaras on a RS-500/600 Series door.

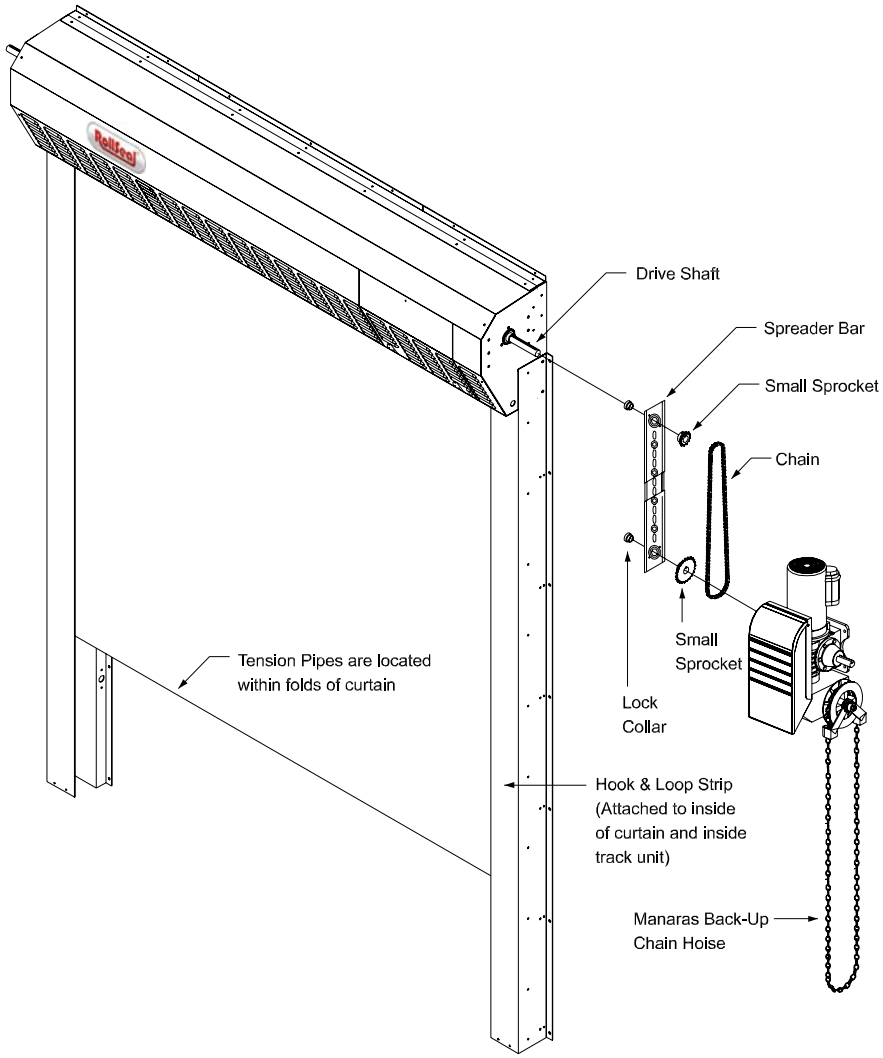
⚠ Warning!

Prior to mounting the Manaras it is important that you read all the information contained within this document and the Manaras Installation and Instruction Manual provided with the door. Failure to do so could result in severe personnel injury or damage to equipment!

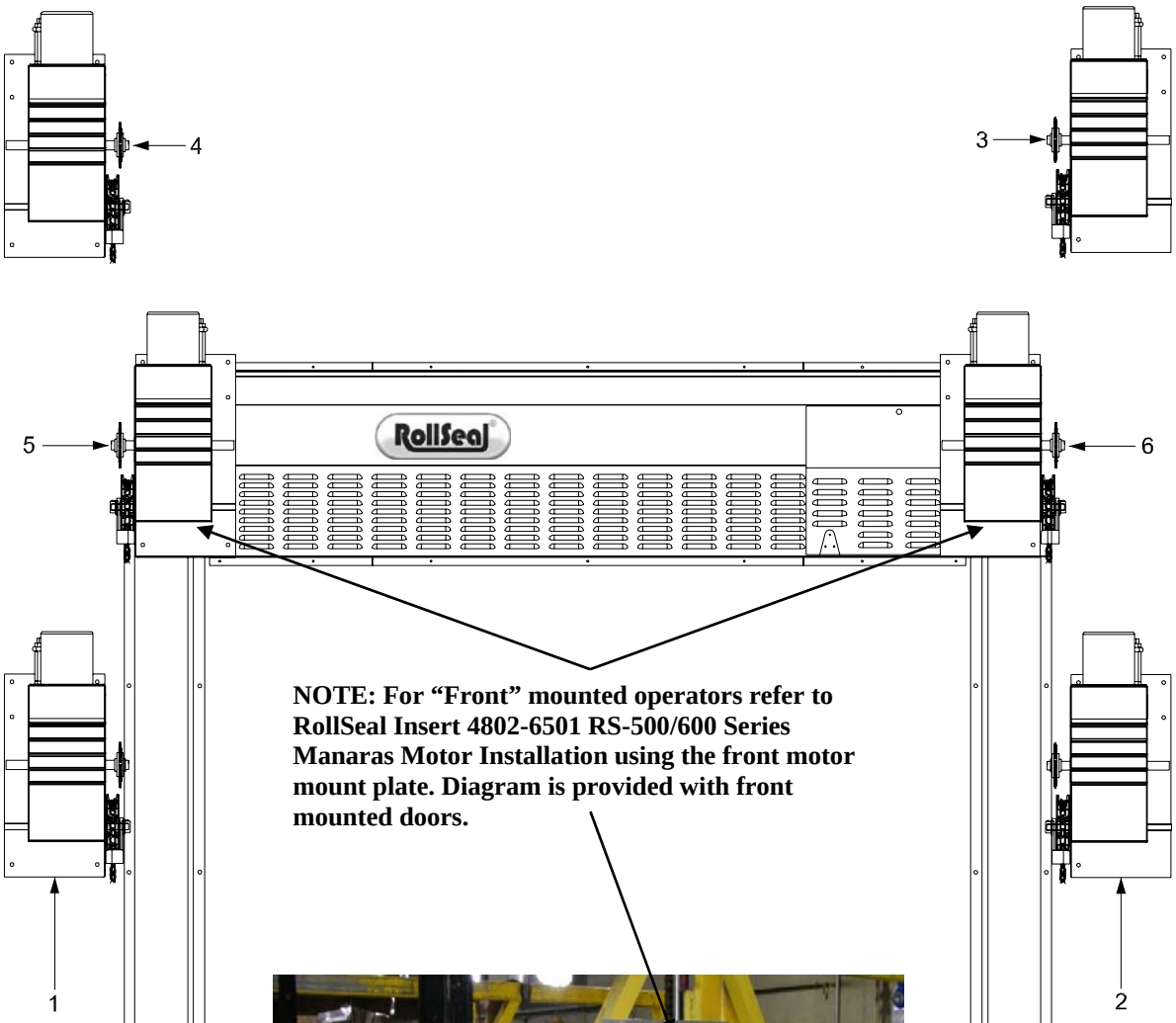
For more detailed information on mounting, wiring and operating the Manaras refer to the Manaras Installation and Instruction Manual provided with the door.

Sprockets are mounted as follows on RS-500/600 Series Doors:

Size 50-12 (small) goes on the door. Size 50-23 (large) goes on the motor. See drawing below.


Drive Shaft
Spreader Bar
Small Sprocket
Chain
Small Sprocket
Lock Collar
Tension Pipes are located within folds of curtain
Hook & Loop Strip (Attached to inside of curtain and inside track unit)
Manaras Back-Up Chain Hoise

NOTE: Manaras GH Operator can be mounted in its normal upright position for all options. However it may be necessary to remove and re-install the chain and pulley on the opposite side to prevent chain interference. Refer to Manaras Opera GH Installation & Instruction Manual if your operator is a gear head operator.



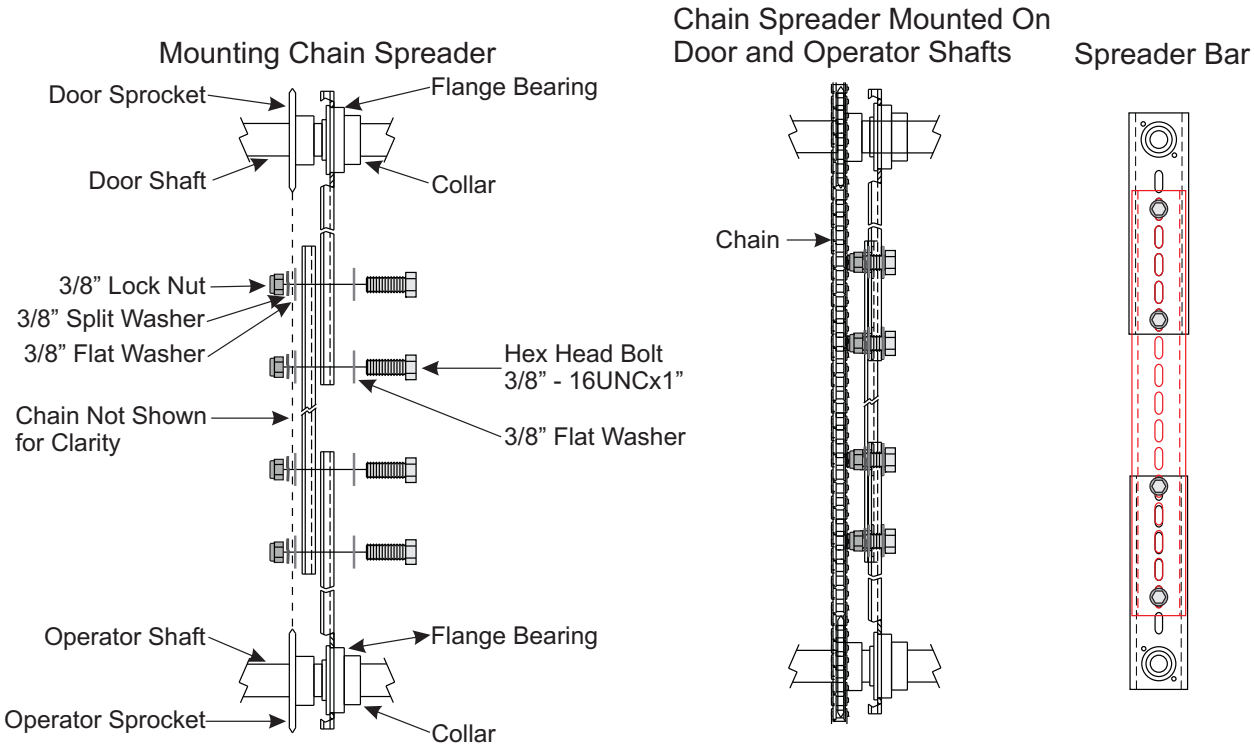
NOTE: For "Front" mounted operators refer to RollSeal Insert 4802-6501 RS-500/600 Series Manaras Motor Installation using the front motor mount plate. Diagram is provided with front mounted doors.

POSITION 1, 4 and 5 – GH motor mounted on left side.
Parts required – Normal size spreader bar, normal size chain, 2 collars and 2 sprockets (1 size 50-12 and 1 50-23)

POSITION 2, 3 and 6 – GH Motor mounted right side.
Parts required – Normal size spreader bar, normal size chain, 2 collars and 2 sprockets (1 size 50-12 and 1 50-23)

Spreader Bar Assembly

Diagram 14A



Length of Spreader Bar and chain may vary according to mounting option selected. For motor mounted 18" away, the Extender Chain Spreader must be used. (**See Diagram 14A**)

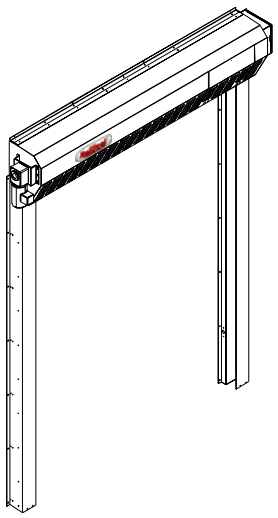
⚠ CAUTION!

Failure to arrange spreader bar, sprocket and collar parts in specific order could result in damage.

NOTE: If sprockets are greater than 2 feet apart you must have Extended Spreader Bar and Chain Kit (part #'s 0404-5214 Manaras Spreader Bar and 6450-7617 Manaras Soft Chain).

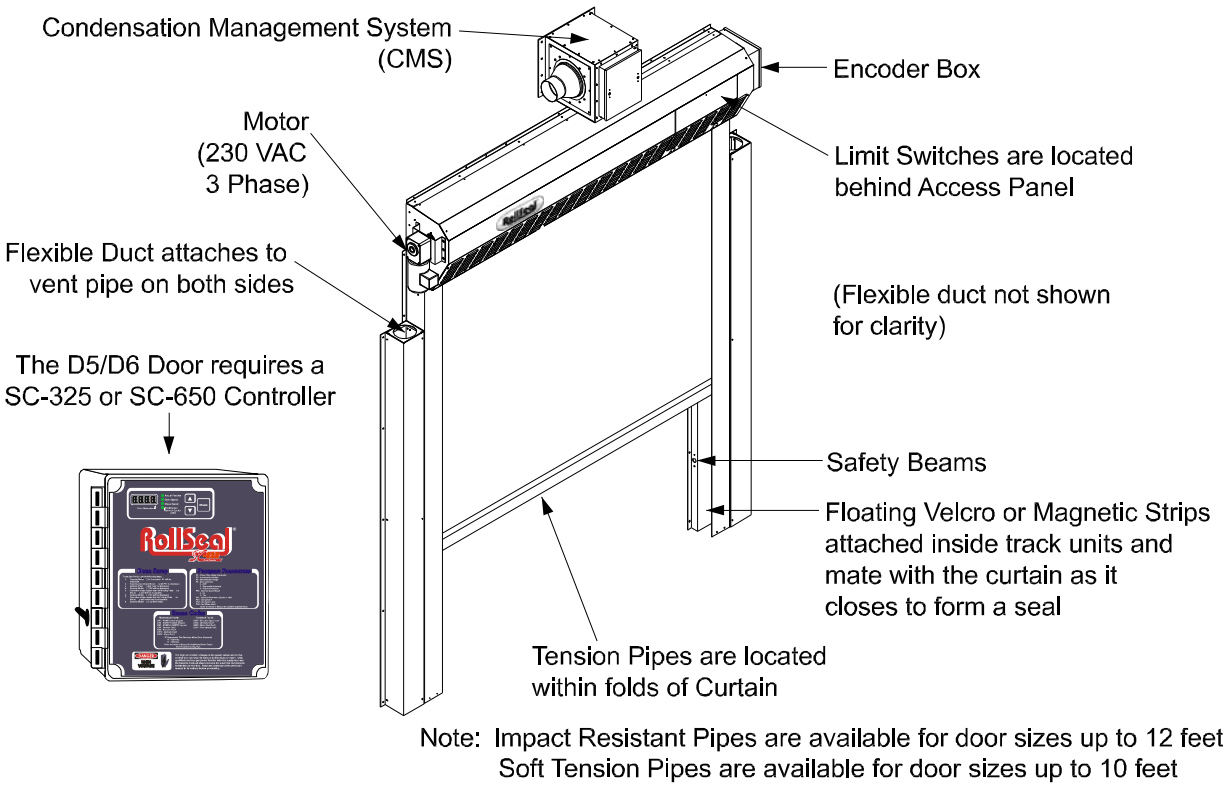
15 Mounting Brother Operator to RS-500/600 Series Door

The Brother Operator will be mounted at the manufacture. Below shows a RS-500/600 Series Door with a Brother Operator. Refer to instructions page 33 and 34 for wiring diagrams for Brother motor wiring.



16 Installation of RS-500/600 Series Doors (Freezer Kit Included)

Installation of a RS-500/600 series Automatic Freezer Door involves connecting to the Smart Controller SC-325 and SC-650 that connects to the AC power, the door motor, the Up/Down button, and the safety beam, plus connecting the Condensation Management System (CMS) Unit and associated duct work. Other accessories can be added such as a remote IR sensor, a remote radio link, and door movement indicators such as lights and bells.


Condensation Management System (CMS)
Encoder Box
Motor (230 VAC 3 Phase)
Limit Switches are located behind Access Panel
Flexible Duct attaches to vent pipe on both sides
(Flexible duct not shown for clarity)
The D5/D6 Door requires a SC-325 or SC-650 Controller
Safety Beams
Floating Velcro or Magnetic Strips attached inside track units and mate with the curtain as it closes to form a seal
Tension Pipes are located within folds of Curtain
Note: Impact Resistant Pipes are available for door sizes up to 12 feet
Soft Tension Pipes are available for door sizes up to 10 feet

16.1 Tools Required

3/8 in. (10 mm) Power screwdriver (portable) 3/16 in. (5 mm) Drill bit and power drill 3/8 x 1 in. Bolts and nuts (supplied)	Socket Hammer Tape measure Carpenter's level
NOTE: Other Tools May Be Required According To Installation.	

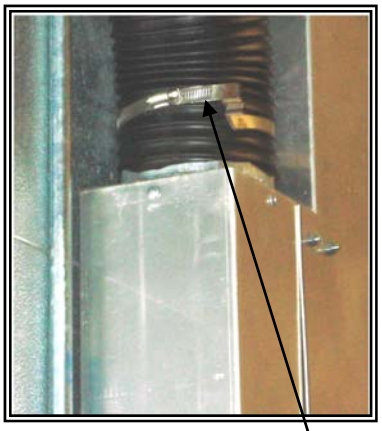
16.2 Overview

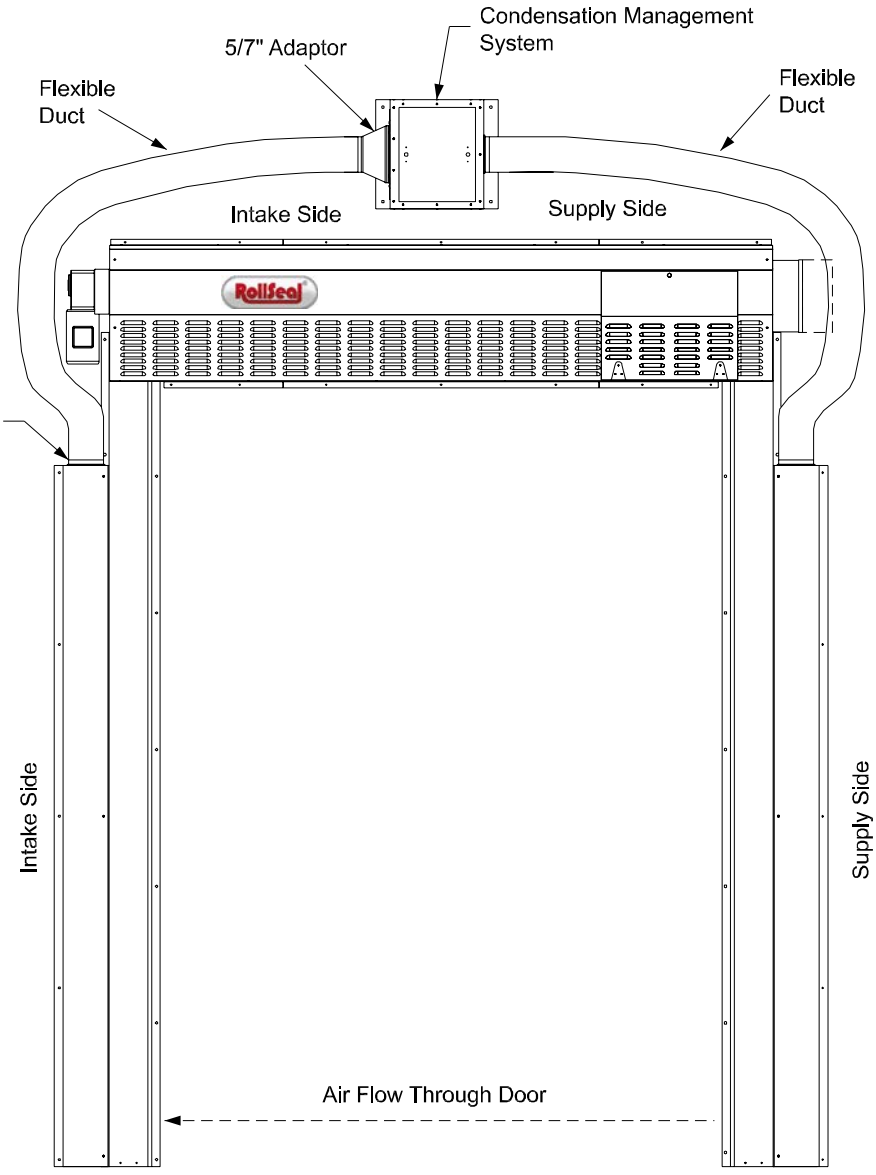
The RS-500/600 Freezer Door is shipped with pre-assembled vertical members (left track and right tracks), with floating magnets, and a pre-assembled horizontal member (head unit). Identify components by the Parts/Assemblies section in back of this manual. When components are received, check for damaged, loose or missing parts. If there are damaged or missing parts contact your RollSeal distributor immediately. Please read and understand all instructions in this manual before beginning installation. After the door has been assembled and attached to the door framing per instructions in **Section 13, Page 18** of this manual it is necessary to install the Condensation Management System (CMS) and ducts to complete the freezer door installation.

17 Installation of Condensation Management System and Ducts

Install the Condensation Management System at the top of the Freezer Door approximately in the center of the door as shown below. Install the 5/7" Duct Adaptor in the intake side of the Condensation Management System.

Carefully run the duct work to the two couplings on the left and right track of the door. Fasten each end of the duct with hose Clamps.





NOTE: For all Freezer applications, the SC-325 and SC-650 Controller "P4" program setting must be set to option "3".

17.1 Connecting the Electrical Power

1. Connect the RollSeal SC-325 and SC-650 Controller to Door Control Box.
2. Refer to the RollSeal SC-325 and SC-650 Controller Manual (4801-5156) for instructions on wiring.
3. Refer to the RollSeal SC-325 and SC-650 Controller Manual (4801-5156) for initial setup.
4. Connect the two control wires from the Condensation Management System to the SC-325 and SC-650 Controller.

18 Mounting Manual Chain Hoist to RS-500/600 Series Door

18.1 First Safety Bracket

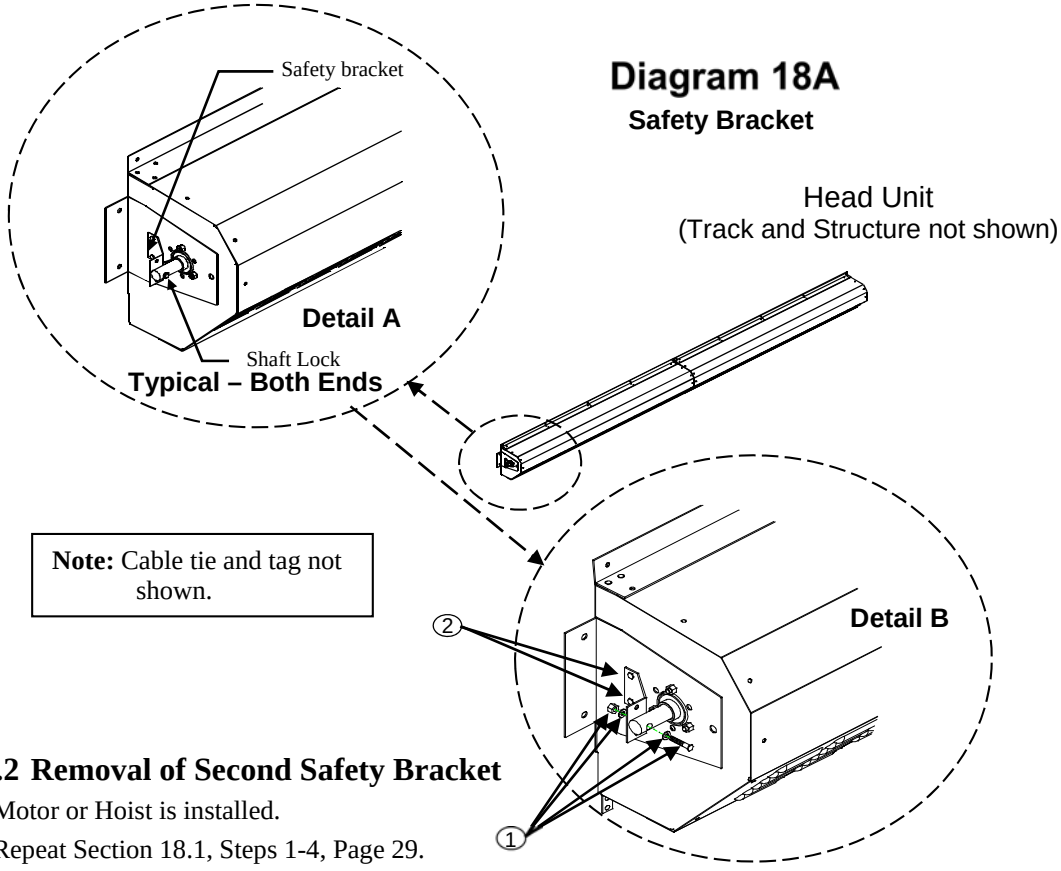
The Safety Bracket is designed to lock the drive shaft (during shipping and installation) to prevent injury from rapid drop of the door curtain. A Safety Bracket is installed on each end of the head unit. Removal of the bracket should only be done after door is secured to structure.

⚠ CAUTION!

Only remove the Safety Bracket from the side of the door that gets the hoist or motor, once door is secured to wall. The Safety Bracket on the opposite side can only be removed after the motor or hoist is installed. ***Removal of both Safety Brackets without motor or hoist installed can cause serious injury or damage***.

Removal of First Safety Bracket:

1. Remove cable tie and tag. Not shown below.
2. Remove the shaft locking hardware. See Diagram 18A, Detail B, Item 1.
3. Remove the two bolts holding Safety Bracket to Head Unit. See Diagram 18A, Detail B, Item 2.
4. Retain hardware and bracket for later use.



Safety Bracket Removal

18.2 Removal of Second Safety Bracket

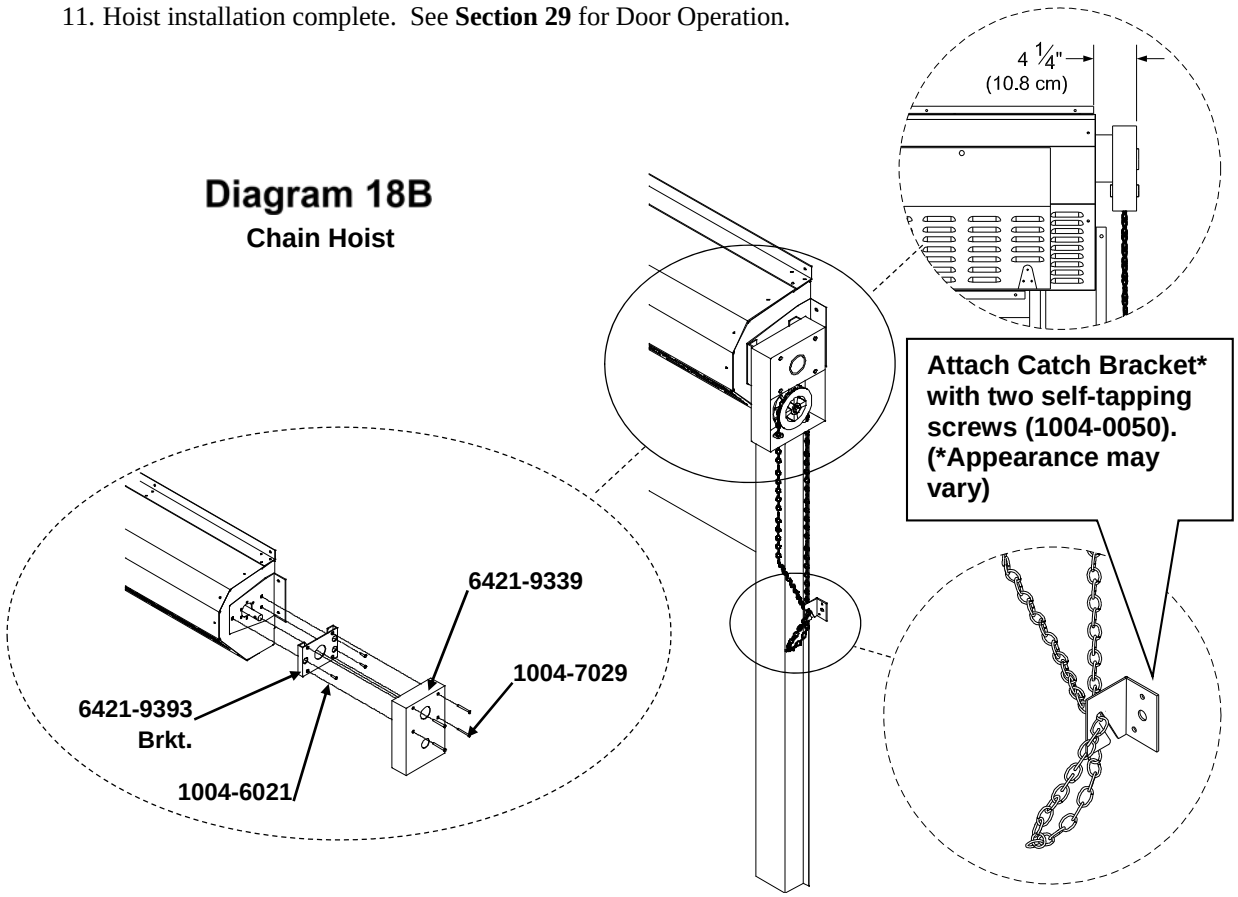
1. Motor or Hoist is installed.
2. Repeat Section 18.1, Steps 1-4, Page 29.

18.3 Chain Hoist Installation

Chain Hoist can be installed on left or right side of door.

1. Remove the Safety Bracket only on the side of the door where the hoist is to be installed. Retain bracket and hardware for later use. See **Section 18.1, Page 29**.
2. On shaft end of door, position U-shaped mounting bracket (6421-9393) over shaft.
3. Align bolt holes of bracket with attachment holes in door.
4. Insert bolts through cut-out openings of mounting bracket.
5. Securely attach mounting bracket to door.
6. Position Chain Hoist (6421-9339) onto mounting bracket. Align bolt holes of Chain Hoist with holes in mounting bracket.
7. Securely fasten Chain Hoist to bracket with bolts provided.
8. Securely attach Catch Bracket to wall with self-tapping screws provided.
9. Securely hook chain into Catch Bracket as shown below.
10. Remove the Safety Bracket on the opposite side of the door from the hoist. Retain bracket and hardware for later use. See **Section 18.2**.
11. Hoist installation complete. See **Section 29** for Door Operation.

Diagram 18B
Chain Hoist



⚠ Warning!

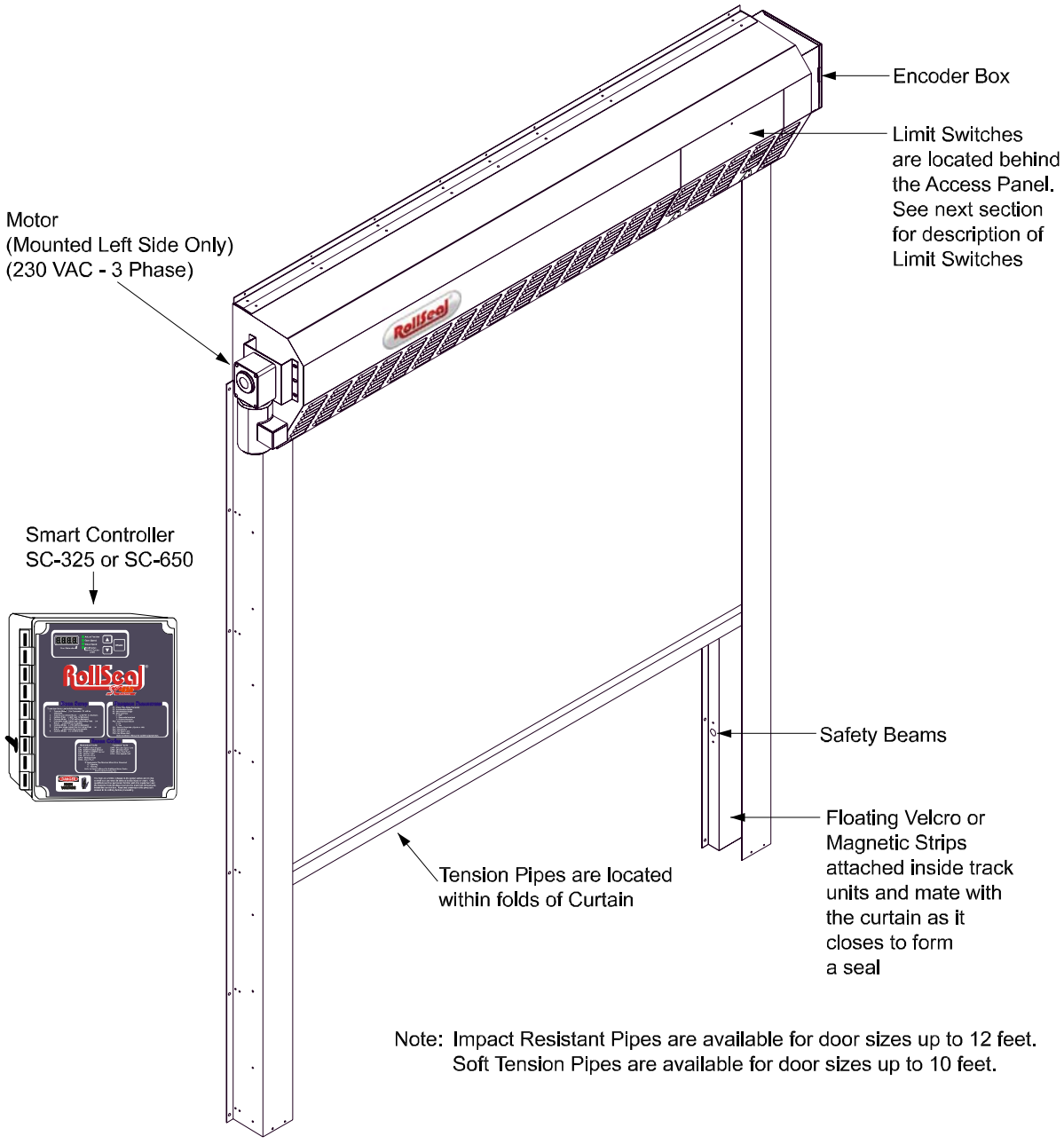
NEVER RELEASE CHAIN!
If Chain Is Released, Door Will Drop With Rapid Motion. Injury May Occur If Chain Is Released!

19 Connecting Electrical Power to RS-500/600 Series Doors

Refer to appropriate Operator Manual (Manaras, MFZ or RollSeal SC-325/650).

20 Operation of RS-500/600 Series Doors

Operation of RS-500/600 Series with Brother Motor Option and RollSeal Smart Controller.


Encoder Box
Limit Switches are located behind the Access Panel. See next section for description of Limit Switches
Motor (Mounted Left Side Only) (230 VAC - 3 Phase)
Smart Controller SC-325 or SC-650
Safety Beams
Floating Velcro or Magnetic Strips attached inside track units and mate with the curtain as it closes to form a seal
Tension Pipes are located within folds of Curtain
Note: Impact Resistant Pipes are available for door sizes up to 12 feet.
Soft Tension Pipes are available for door sizes up to 10 feet.

20.1 Limit Switches

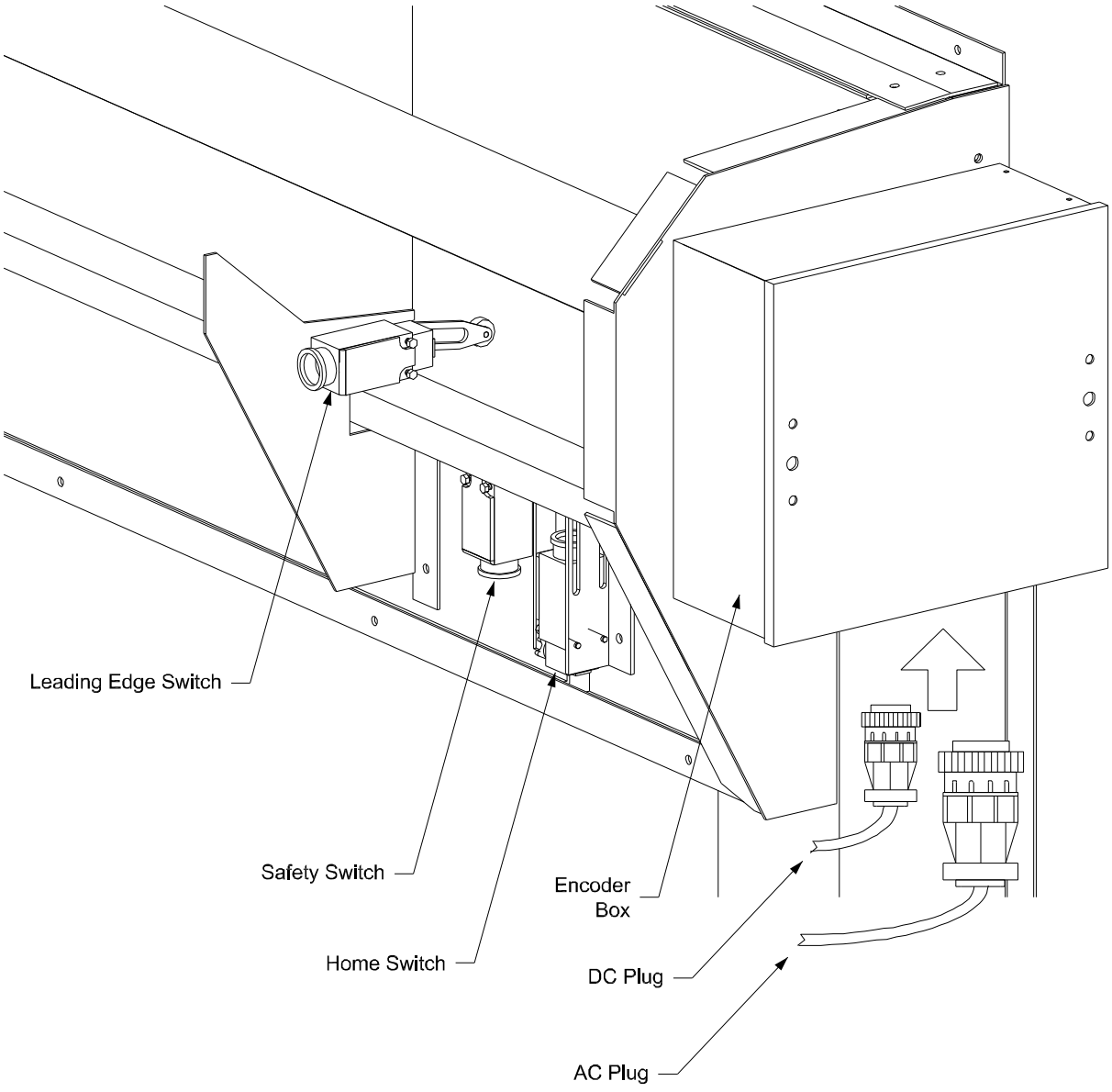
There are three limit switches located within the horizontal member mechanism. See **Diagram 20A**. These switches are attached to levers that contact the curtain.

The **Home Switch** establishes the 'open' reference position of the door curtain. This creates the zero reference position, from which the encoder counts the position of the door.

The **Safety Switch** is a fail-safe switch that stops the curtain in the unlikely event of malfunction of the home switch.

The **Leading Edge Switch** is a switch that stops the curtain in the event of a doorway obstruction.

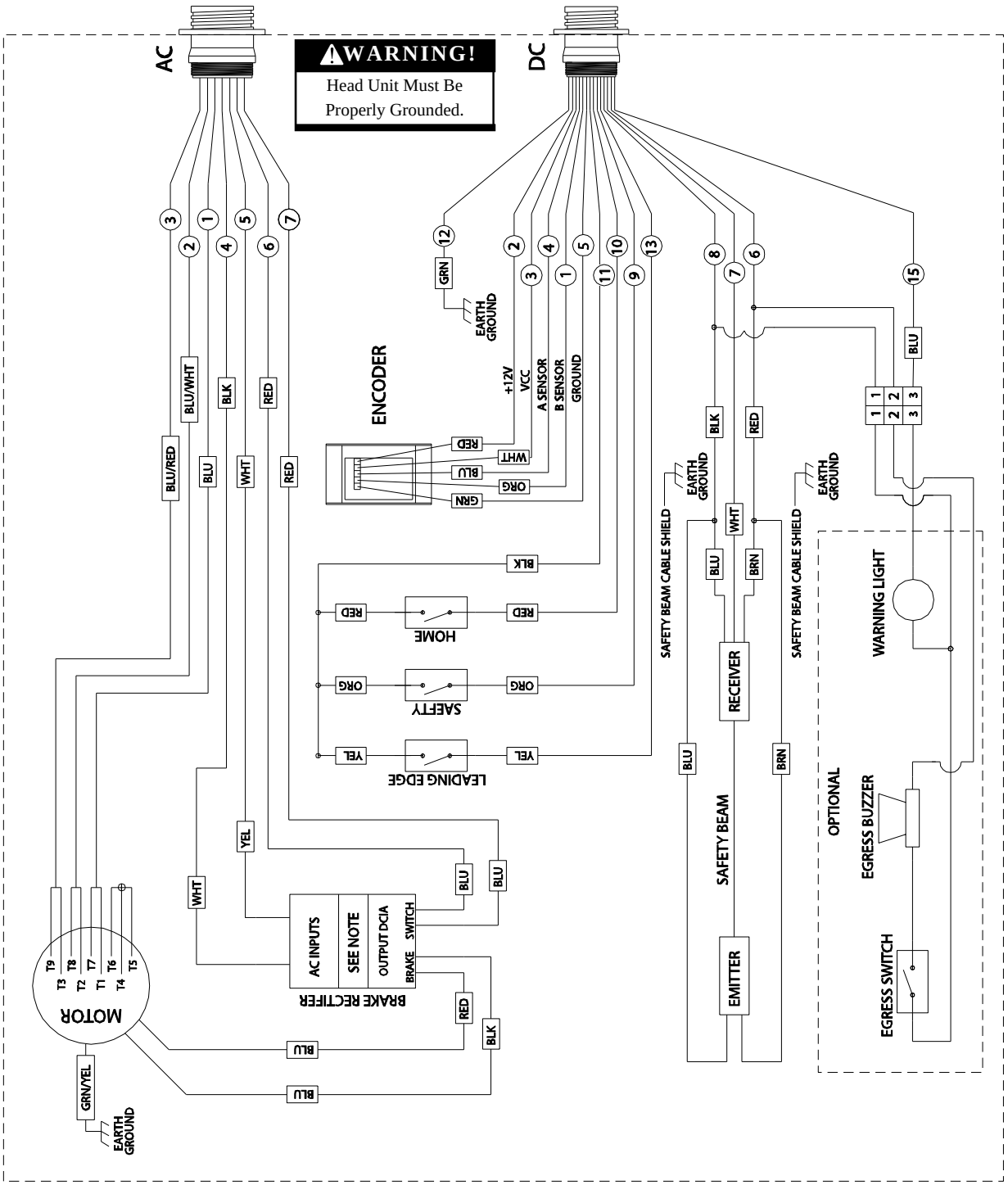
Diagram 20A



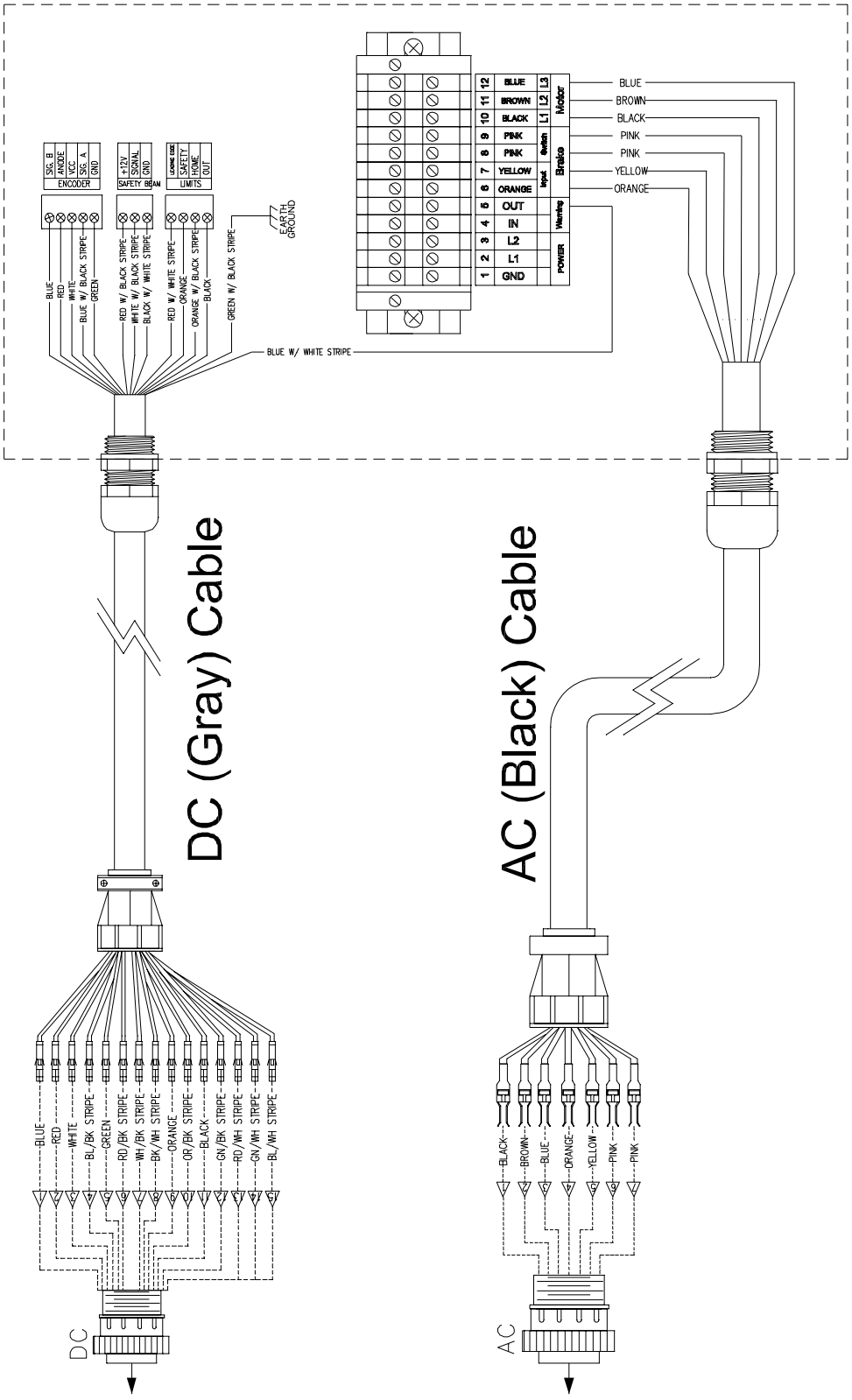
21 RS-500/600 Series Door Wiring Diagram (Brother Motor Only)

See Page 34

See Page 34



22 RollSeal Smart Controller Wiring Diagram (Brother Motor Only)



See Page 33

See Page 33

NOTE: Refer to the RollSeal SC-325/650 Controller Manual for wiring and initial setup. After wiring the controller to the door, connect electrical power to the controller. The door is now ready for operation.

The controller keeps track of the "open" and "closed" positions of the door by means of a mechanical encoder wheel that is located in the encoder box. The controller electronically counts steps as the wheel turns to keep track of the door position. The door seals by means of 'hook & loop' or 'magnetic' strips along the edges of the door curtain and vertical members.

To Operate Door:

1. Depress "Open" switch button mounted on the wall. Door curtain will roll up to 'open' position and find "HOME" position and drop some to the set upper limit. If door was wired for "timer" it will count down from set delay and close on its own. If not on wired on "timed" function proceed to step 2 to close.
2. Depress "Close" switch button. Door curtain will roll down to 'closed' position of lower limit and stay
3. Depress button to open or close door as desired.
4. Open and close the door a few times to test door operation and remove any wrinkles in the door curtain.

If you detect any problems, STOP. Disconnect electrical power. Contact your distributor for assistance.

23 Operation of RS-500/600 Series Door with Freezer Kit Included

The controller keeps track of the "open" and "closed" positions of the door by means of a mechanical encoder wheel that is located in the control box. The controller electronically counts steps as the wheel turns to keep track of the door position.

The door seals by means floating magnets and laminated steel strips along the edges of the door curtain and vertical members.

23.1 SC-325 and SC-650 Program Setup for Freezer Mode

For all Freezer Door applications, the SC-325 and SC-650 Controller "P4" program setting must be set to option "3". Option "3" will reconfigure the SC-325 and SC-650 Controller "Warning" output for Freezer Mode. This mode will operate freezer equipment such as blowers or heaters when wired properly (See Wiring Diagram in the SC-325 and SC-650 Controller manual 4801-5156 **Connecting Switches to the SC-325 and SC-650 Wiring Option -W01**). The P4 Door Interlock option 3 "Freezer Mode" is explained in detail below.

P4 - Option 3 = Freezer Mode, No Interlock

When the Freezer Door and SC-325 and SC-650 Smart Controller is used in freezer applications and P4 is set to 3, the Auxiliary Output Relay is used to operate equipment such as blowers or heaters. *Available on Software versions V0.21 and later.

- Operation of the blowers or heaters will occur ONLY while the door is closed. Closed refers to the normal operation while the door is below Safety Beam Height.
- Auxiliary Output Relay will disengage during door movement, setup operation, jog mode, etc.
- Auxiliary Output Relay will engage upon the door stopping below Safety Beam Height.
- If the Home Switch is engaged, the Auxiliary Output Relay will turn Off-disengage.
- If the door status indicates unknown position, the Auxiliary Output Relay will turn Off-disengage.

When P4 = 3 (Freezer Mode):

P5- "Freezer Mode" Auxiliary ON Time

If P4 = 3, this P5 setting, along with P6, allows the user to cycle the fan & heater On & Off. Since not all applications are the same, some will not require as much help eliminating condensation while others may require more. This setting, along with P6, allows the user to operate the unit as efficient as possible.

P6- "Freezer Mode" Auxiliary OFF Time

This setting works in conjunction with P5 to complete the On/Off cycle of the condensation removal system.

⚠ WARNING!

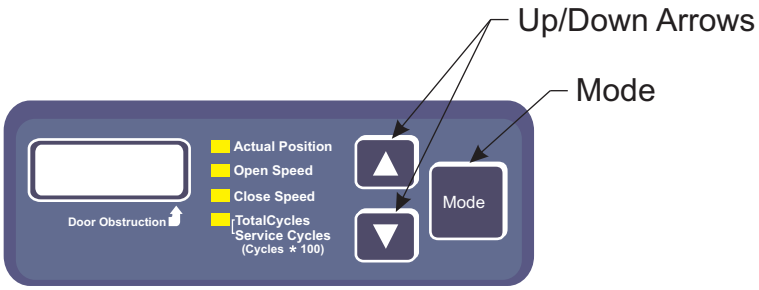
When P4 Is Set To 3, The Functions Of The "Warning" Output Are Reconfigured For Freezer Operation And Can Not Be Used For Other Functions.

Enter Program Mode – Set P4 to "3"

Settings that are usually set up when the SC-325 and SC-650 Smart Controller is installed or adjusted are referred to as Program Parameters.

- To get to the Program Mode, press and hold the *Mode* button for at least five seconds. When the controller has entered the Program Mode, the display will flash between P1 and the current value of the program parameter.
- Press the *Mode* button three more times until the display flashes between P4 and the current value of the P4 program parameter.
- Check/verify that the current displayed parameter is set to "3". If "3" is not the selected parameter, the displayed parameter must be changed to "3" by pressing the *Up* (△) *or Down* (▽) arrows.
- When the P4 parameter has been set, repeatedly press the *Mode* button to move past all of the following parameters and exit the programming mode.

NOTE: P5 and P6 parameters are already set to factory default values. Do not initially adjust these values until complete operation is confirmed and only adjust when the door & heater/fans can be monitored for satisfactory operation.



PROGRAM PARAMETERS		
P1 - Close Time Delay (Seconds) **P2** - Acceleration Range **P3** - Deceleration Range **P4** - Door Interlock 0 - OFF 1 - Sequential Interlock 2 - Passive Interlock 3 - Freezer Mode - No Interlock **P5** – Auxiliary On Time **P6** – Auxiliary Off Time		**P10** - Service Cycle Reset 0 - No 1 - Yes **P11** - Service Reminder (Cycles x 100) **P12** - Input Status **PS1** - Set Limits? **PS2** - Set Open Limit **PS3** - Set Close Limit

***Refer to the 4801-5156 SC-325 and SC-650 product manual for additional smart controller information.**

23.2 Open and Close Door

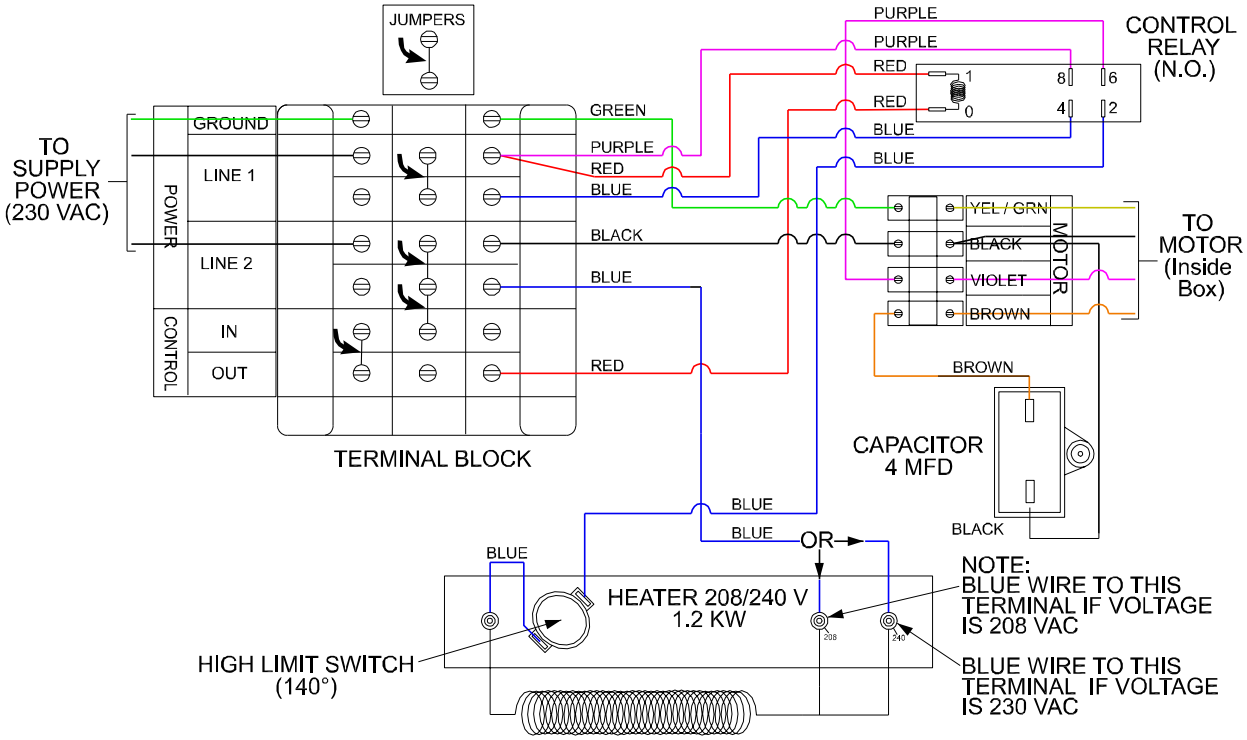
1. Depress manual control button. Door curtain will unroll to 'closed' position.
2. Depress manual control button. Door curtain will roll up to 'open' position.

Depress button to open or close door as desired.

Open and close the door a few times to test door operation and remove any wrinkles in the door curtain. The door is now ready for operation.

If you detect any problems, STOP. Disconnect electrical power. Contact your distributor for assistance.

24 RS-500/600 Series Door Condensation Management System Wiring Diagram



25 Manual Operation RS-500/600 Series Door (Brother Motor Only)

25.1 Operating Instructions

The RS-500/600 Series Door can be operated manually in the event of a power outage or if there is a motor malfunction. To operate the door manually, perform the following instructions.

⚠ Warning!

Disconnect All Electrical Power To Motor Before Attempting
To Operate The Door Manually!

⚠ Warning!

The Curtain Is Released When Brake Lever Is Disengaged.
Do Not Disengage Brake Until Door Opening Is Clear!

If door is OPEN (door curtain raised) perform the following steps:

1. Locate brake lever at bottom of motor. (See diagram below).
2. Carefully release brake by flipping lever down.

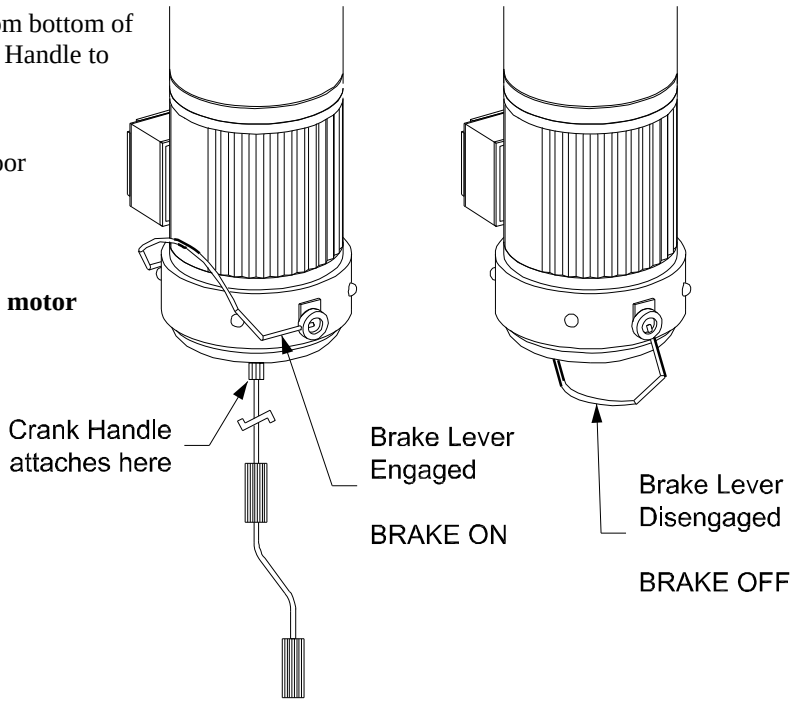
CAUTION: Curtain will drop when brake is released.

If door is CLOSED (door curtain lowered) perform the following steps:

1. Turn power off to the controller
2. Locate brake lever at bottom of motor.
3. Carefully release brake by flipping lever down.
4. Motor shaft is accessible from bottom of motor. Use provided Crank Handle to rotate motor shaft.
5. Carefully turn motor shaft counterclockwise to raise door curtain.

Note: The drive (as viewed from the 'motor end' of door) is counterclockwise rotation of the motor shaft.

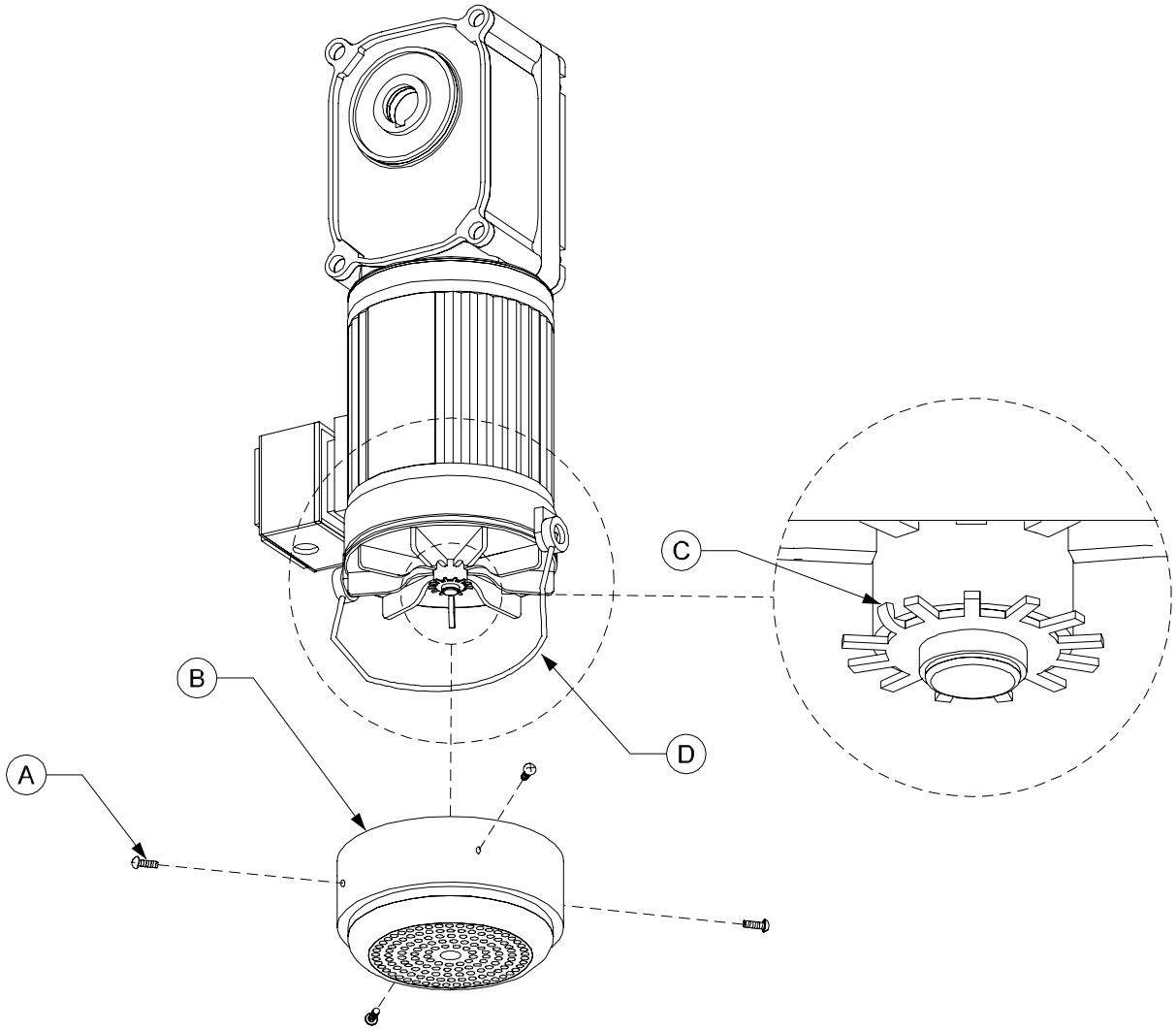
5. When door curtain has been raised to desired height, flip brake lever up to engage brake.
6. If you do not release the brake it could result in damage to the motor.



26 Adjustment of Brake (Brother Motor Only)

After extended operation of the brake lever, the brake may become worn. As the brake wears, some adjustment to the brake is required. Lettered diagrams below correspond to lettered instructions. Follow instructions to adjust brake:

1. Close door curtain to fully lowered position.
2. Engage Brake lever.
3. Disconnect electrical power to motor.
4. Remove four Phillips screws (**A**).
5. Remove cover (**B**).
6. Straighten the bent tab (**C**) of spider nut.
7. Tighten spider nut (**C**) snuggly against blower wheel. Make sure a tab of spider nut is aligned with a notch in the shaft
8. Bend tab (**C**) upward into notch of shaft.
9. Replace cover (**B**).
10. Replace four Phillips screws (**A**).
11. Disengage brake lever (**D**).
12. Adjustment complete.



27 Operation of RS-500/600 Series with Manaras Motor Option.

Complete installation and operating instructions are provided with the Manaras Operator at the time of delivery. Refer to these instructions for the proper installation and alignment of the Manaras operator.

After the door has been secured to its frame (as previously described), the Manaras motor has been mounted with chain, spreader bar and associated hardware (per instructions in this manual and the Manaras installation manual), the door will be ready to operate after completing the following steps.

⚠ Warning!

TO AVOID THE DANGER OF POSSIBLE DAMAGE TO THE DOOR AND OPERATOR, TRAVELLING CAMS MUST BE ADJUSTED TO THEIR APPROXIMATE POSITIONS BEFORE MANUALLY OPERATING THE DOOR OR BEFORE APPLYING POWER TO THE OPERATOR.

⚠ Warning!

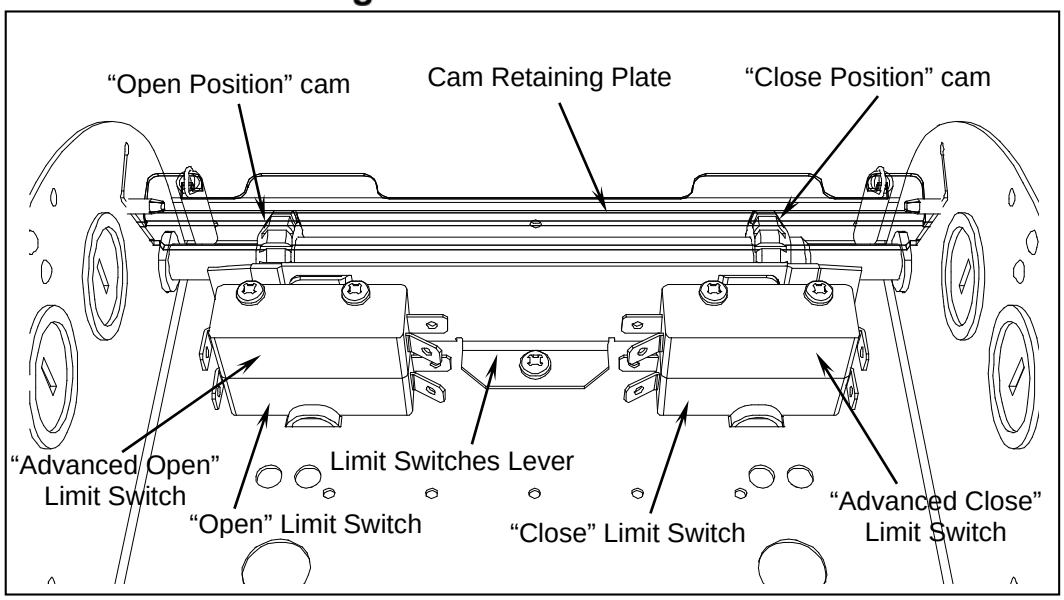
Do not remove the cable ties from around the door head unit until the door is installed to the door frame and the Manaras Operator is properly installed to the door drive shaft. Without proper support, the door will drop with rapid motion and injury may occur.

Before using the Manaras Operator's UP/DOWN manual chain or switch controls, ensure the shipment cable ties and drive shaft safety brackets are removed from around the door head unit.

27.1 Limit Switches.

There are 4 limit switches. Two are used as end of travel, one is for radio-control or one-button operation and one is for reversing devices. These switches are activated by the rotary cams traveling on a threaded shaft. **Refer to Diagram 27A, Limit Switches.**

Diagram 27A Limit Switches



⚠ Warning!

NEVER PLACE HANDS OR TOOLS INSIDE OPERATOR OR NEAR DRIVE MECHANISM UNLESS POWER IS OFF.

27.2 Adjustment of Limit Switches

1. Open the cover of the electrical enclosure.
2. Manually raise the door to a nearly opened position using the Manaras manual chain. (**Section 29, Page 45, Manual Operation of Door with Manaras Operator**)
3. Pull the traveling cam retaining bracket on the Open Position cam side and rotate the Open Position cam. **Refer to Diagram 27B, Adjusting The Limit Cams.**

Note: Turning the cam towards the center of the shaft increases door travel. Turning the cam towards the switch decreases door travel.

4. Manually rotate the Open Position cam until the lever activates the Open limit switch sufficiently so as to hear the switch click.
5. Release and engage the retaining bracket. Make sure that the bracket engages in the slots of both limit cams after each adjustment.
6. Manually lower the door to a nearly closed position and repeat **steps 3 through 5** with the Close Position cam.
7. Upon completion of all wiring connections, repeat **steps 2 through 6 above** using the "Stop" button for adjustments of limit switches to their final, exact positions

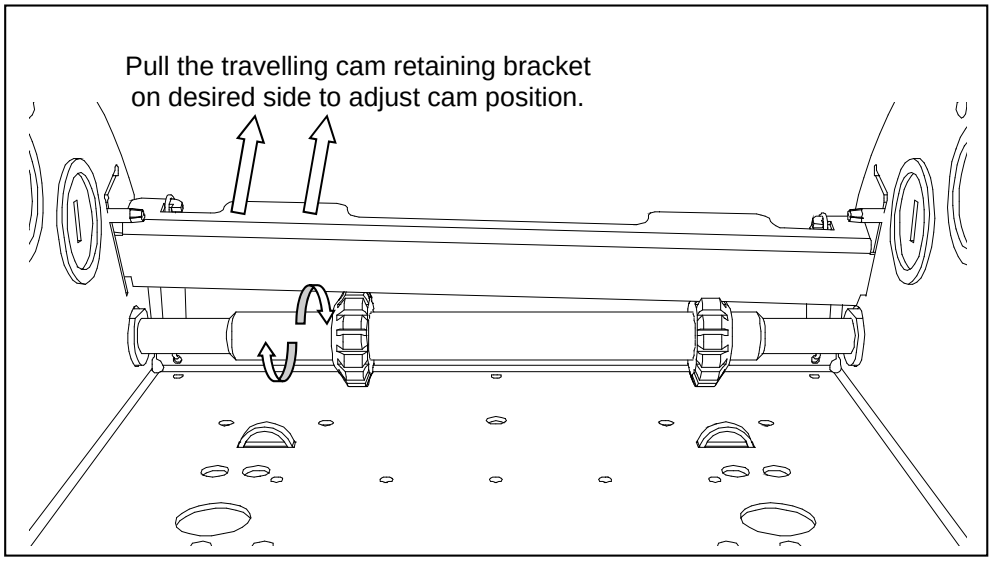


Diagram 27B Adjusting the Limit Cams

27.3 Wiring Options to the Manaras Operator Terminal Block

- Radio Controls: Consists of a radio receiver unit and remote transmitters. These controls consist of an RF signal being emitted on a "pulse" basis to a mated receiver tuned to the same "pulse" rate. Once the receiver accepts the code, a relay is activated closing a set of contacts.
- Photo-electric units: Can be used as opening and reversing devices. An infrared light is emitted from the control to a reflector and back. If, during closing travel of the door, the light beam is broken, the door will reverse to the fully open position.
- Digital Keypad: Consists of a control head which is pedestal mounted. Similar to a telephone touch pad it allows the selective coding of a four number series. Once the programmed series of numbers is received in their set order, a relay closes and completes a circuit.
- Card Reader: A magnetic-mechanical device which accepts sealed and coded cards. The cards trigger magnets to rise in the cartridge head, releasing a lock mechanism which allows a deeper insertion of the card. The card then contacts a switch that closes the circuit.
- Key Switch: Momentary contact will open door. Can be wall or post mounted for interior or exterior use. *** Refer to Diagram 27C, Manaras Terminal Input Connections.**

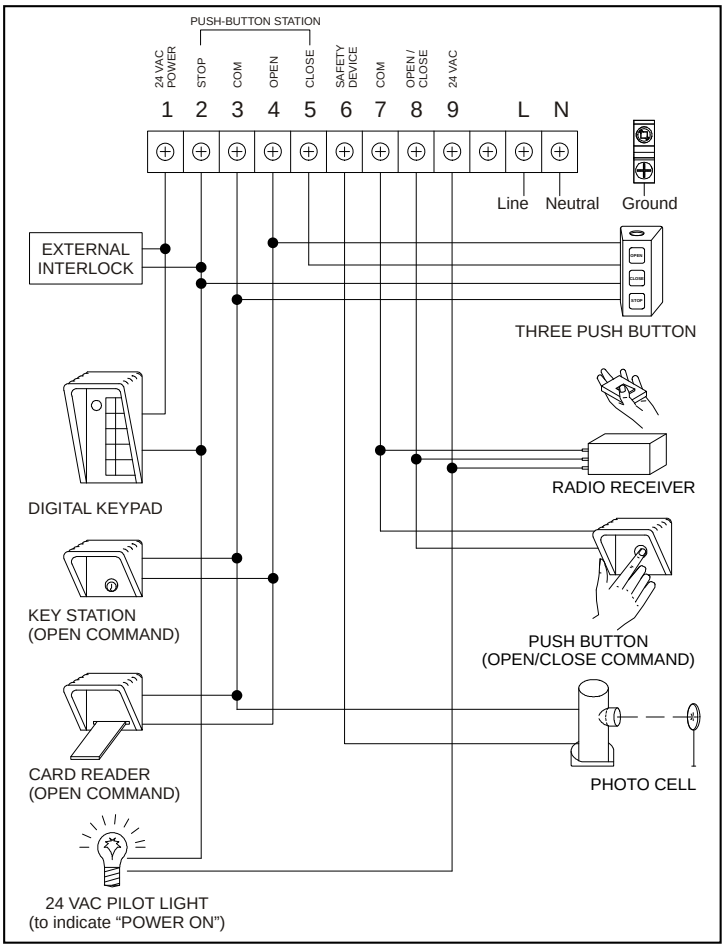


Diagram 27C Manaras Terminal Input Connections

NOTE: Certain accessory devices may require additional power wiring.

22.3 Switch Operation of Door with Manaras Operator

To Operate Door:

1. Depress the **"Close"** button on the Open/Close/Stop switch. Door curtain will unroll to 'closed' position.
2. Depress the **"Open"** button on the Open/Close/Stop switch. Door curtain will open to 'Open' position.
3. Depress button to open or close door as desired.
4. Open and close the door a few times to test door operation and remove any wrinkles in the door curtain.
5. If you detect any problems, STOP. Disconnect electrical power. Contact your distributor for assistance.

28 Manual Operation Manaras Operator

The RS-500/600 Door can be operated manually in the event of a power outage or if there is a motor malfunction. To operate the door manually, perform the following instructions.

⚠ Warning!

Do not attempt to manually operate the door while the operator is running. Do not attempt to manually force a malfunctioning door to open or close. The chain is an emergency device and is not designed to operate a door with serious mechanical problems.

⚠ Warning!

NEVER RELEASE CHAIN! If Chain Is Released, Door Will Drop With Rapid Motion.

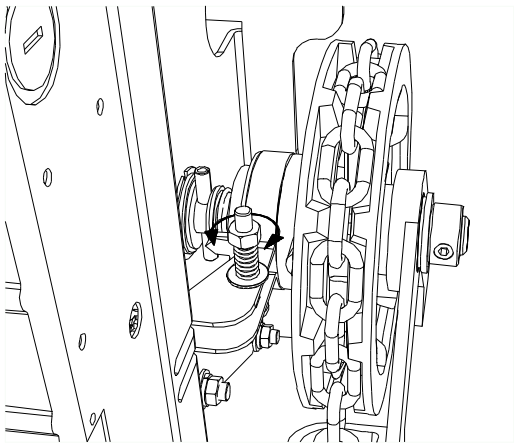
Injury May Occur If Chain Is Released!

Do not remove the cable tie securing the chain to the chain guide until after the chain bracket is completely installed and the chain is secure. Remove and discard the cable tie securing the chain to the chain guide prior to manual operation.

1. Pull on the hand chain in the down direction. The first foot pulled will engage the chain hoist mechanism and disable the electrical circuit.
2. Continue to pull the chain in the desired direction. Repeat actions 1 and 2 in the opposite direction if the door does not run in the desired direction.
3. To return to electrical operation, pull slightly on the chain in the opposite direction.
5. Adjustment of the door is required if no door movement occurs after two feet of pulled chain. To adjust, turn the adjusting nut clockwise (See Diagram 28A) by ¼ turn until the hoist engages after pulling one foot of chain.

NOTE: If the nut is too tight, the manual torque on the chain will be too heavy.

Diagram 28A Chain Adjusting Nut



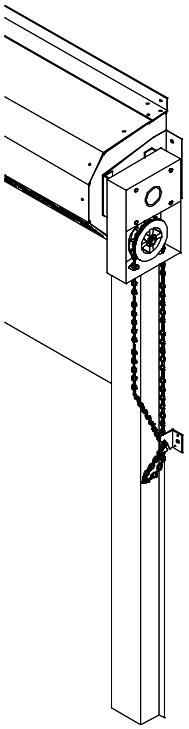
29 Operation of RS-500/600 Series with Manual Chain Hoist Option

⚠ Caution!

NEVER RELEASE CHAIN WHILE DOOR IS BEING RAISED OR LOWERED!
You must maintain tension on chain while door is lowered to prevent rapid drop (closing) of the door.

Manual Operation with Chain Hoist

1. Carefully pull chain to open (Raise) door.
2. When door is fully raised, securely hook chain into Catch bracket as shown in Chain Hoist Instructions.
3. To Close (Lower) door, ***securely hold chain***. Unhook chain from bracket. Gradually close door.



30 Emergency Egress (Optional Feature)

The Emergency Egress feature provides a simple and convenient means of exiting a Roll Seal RS-500 Door from the inside of the structure should the door motor become inoperative due to a power failure or other conditions.

30.1 Installation

Install the two Strap Retainers (1040-8400) to the left or right side outside of door jamb as shown below. For a wood framed door jambs use two #10 x1″ screws (1004-1386). For a metal framed door jamb use two #8x1/2 Tek screws (1004-2492). **See Diagram 30A.**

Diagram 30A

Install the Emergency Egress Tool Retainers on the door jam

Diagram 30B

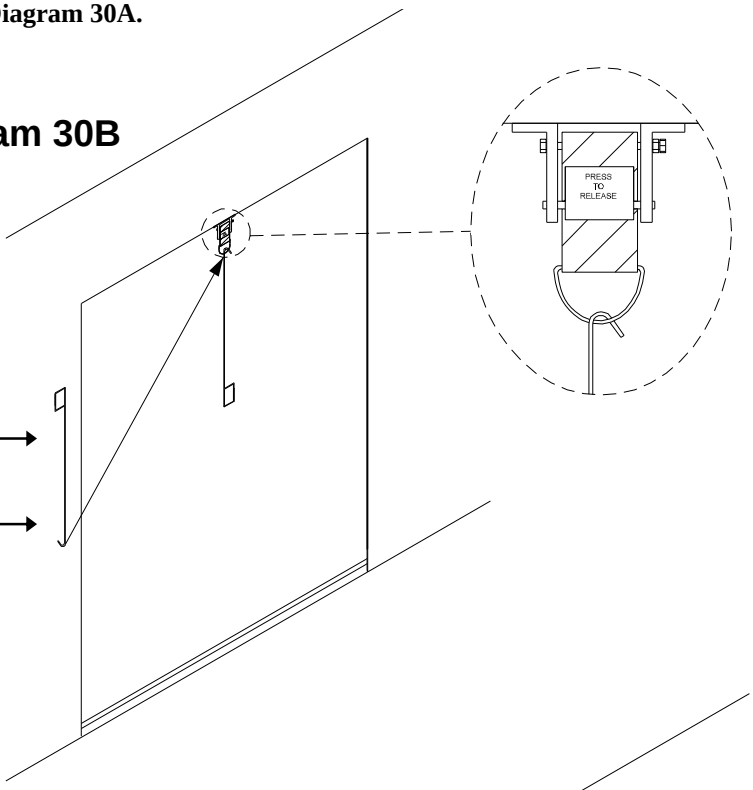
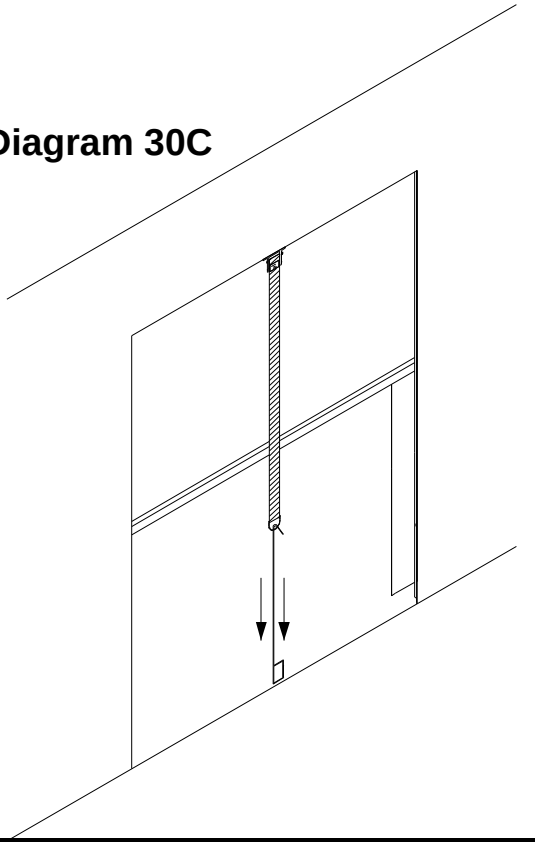


Diagram 30C



30.2 Exiting (Opening) The Door

1. Remove Emergency Egress Tool from the retainers on the side of the door.
2. Connect the hook end of the tool to the D-Ring on the top of the door frame. **See Diagram 30B**.
3. Pull down on the Egress Strap. The Door will raise approximately half way up. The door will open enough for a person to exit the structure. **See Diagram 30C**.

.

30.3 Resetting (Closing) The Door

After the RollSeal RS-500 Door is opened by using the Emergency Egress Strap, the door must be carefully re-set to ensure proper operation in the future.

⚠ CAUTION!

When the Cam Buckle is released, the door will rapidly close unless tension is held on the strap. Keep fingers away from buckle while closing.

1. Firmly hold strap. See Diagram **30D.**
2. Press the Cam Buckle Release. See Diagram **30E.**
3. Gradually feed strap through Cam Buckle until door is closed at bottom.
4. Return Emergency Egress Tool to retainers for future use.
5. Cycle the door up and down in normal operating mode to ensure proper re-setting of the door. Adjust if necessary. Door should now function normally.

Diagram 30D

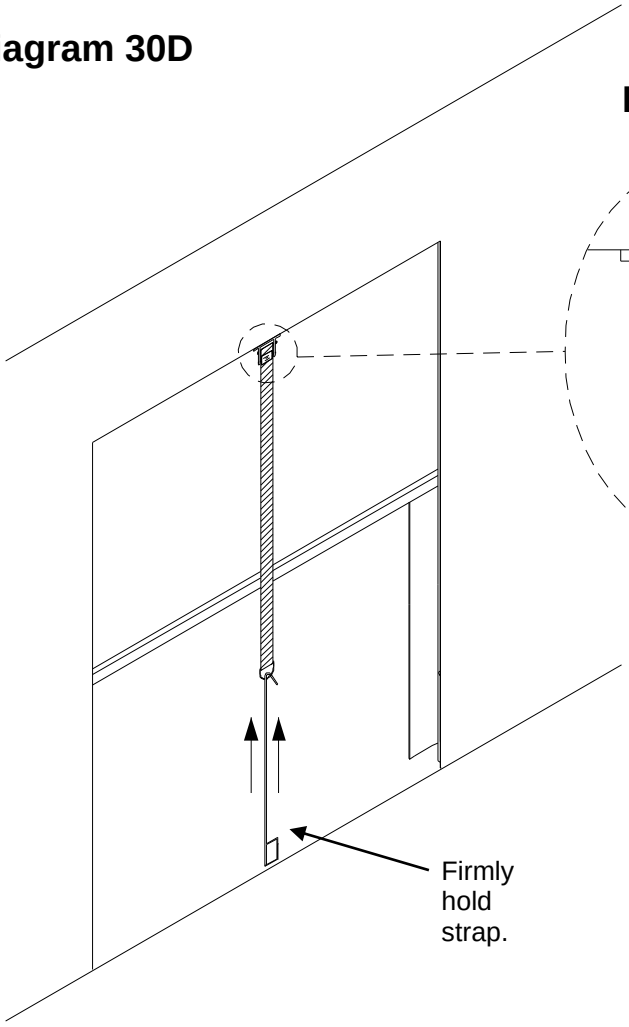
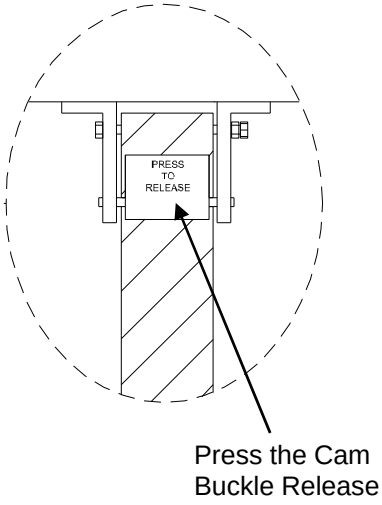


Diagram 30E



31 Egress Strap Removal/Re-Installation

31.1 Removal

1. Locate the door controller and turn off the power switch on the left side of the controller.
2. Remove the door's head unit cover.
3. Place the door in the JOG mode by holding the Up and down arrows on the controller at the same time until you see "JOG" in the controller's display.

! Warning!

Watch the panel closely while you are slowly jogging/rolling the curtain up on the drive shaft. Stop when you see the area where the long egress strap is connected to the short egress piece attached to a triangle panel. This should bring the strap and connection point, right to the top for easy access. Failure to stop can cause curtain to reverse direction and damage door components.

4. Find the area where 2 loops are attached with a quick-link, unscrew the quick-link that attaches the long yellow strap loop to the yellow loop of the triangle piece. Make sure not to drop the weight into the door.
5. Access the inside area of the cooler/freezer box through the door opening. If the strap is hanging inside, unhook and remove the gold buckle and the damaged yellow strap (top center of door) from the door

31.2 Installation

1. Locate the door controller and turn off the power switch on the left side of the controller.
2. Remove the door head unit cover if it has not been removed previously.
3. Un-roll the yellow egress strap with attached gold buckle.

NOTE: Insert the strap through the hole in the center of the door, near the top, where original strap was traveling down inside the curtain and replace the old gold buckle with the new one.

4. Proceed to the outside area and locate the roller assembly at the top center of the door where the original strap came into the curtain area from the inside cooler/freezer area. Use anything with some stiffness (banding material) and feed the stiff item through the roller and down through the slot located in the inside cooler/freezer area and tape or tie it to the small loop (not the D-ring) of the yellow strap. Then gently pull it through the hole and roller assembly at the top/center of the door.
5. Ensure the yellow strap is not twisted. Place the counter weight onto the yellow strap.
6. Attach the new strap (small loop) that you just pulled into the curtain area to the (small loop) strap on the traingle piece of panel using the quick-link.
7. Attach the gold buckle to the door frame.
8. With the controller still in JOG mode, use the down arrow to lower the door to the floor. Exit JOG mode by holding the Up and Down arrows on the controller at the same time until you see "---" in the display of the controller.
9. Press Open on the 2 button switch. The door should open, timeout, and close. If it does, run it open and close several times. If it works well then go to step 10. If not, notify tech support of the manufacturer.
10. Re-attach the cover.

32 Door Panel Adjustments

During normal operation, the tension pipes should run in close proximity of each other. The clearance between the tension pipes should normally be between 1/4″ to 1/2″ (6.35 mm - 12.7 mm). See Detail 3 below. There are two situations pertaining to the tension pipes that may cause problems with door operation. If the tension pipes are too far apart, the tension pipes will not repel each other. This causes poor contact between the hook & loop or magnets. On the other hand, if the tension pipes are riding one another (i.e. touching one another), the door panel material does not flow evenly, thus leaving wrinkles in the panel instead of a stretched, smooth & even appearance.

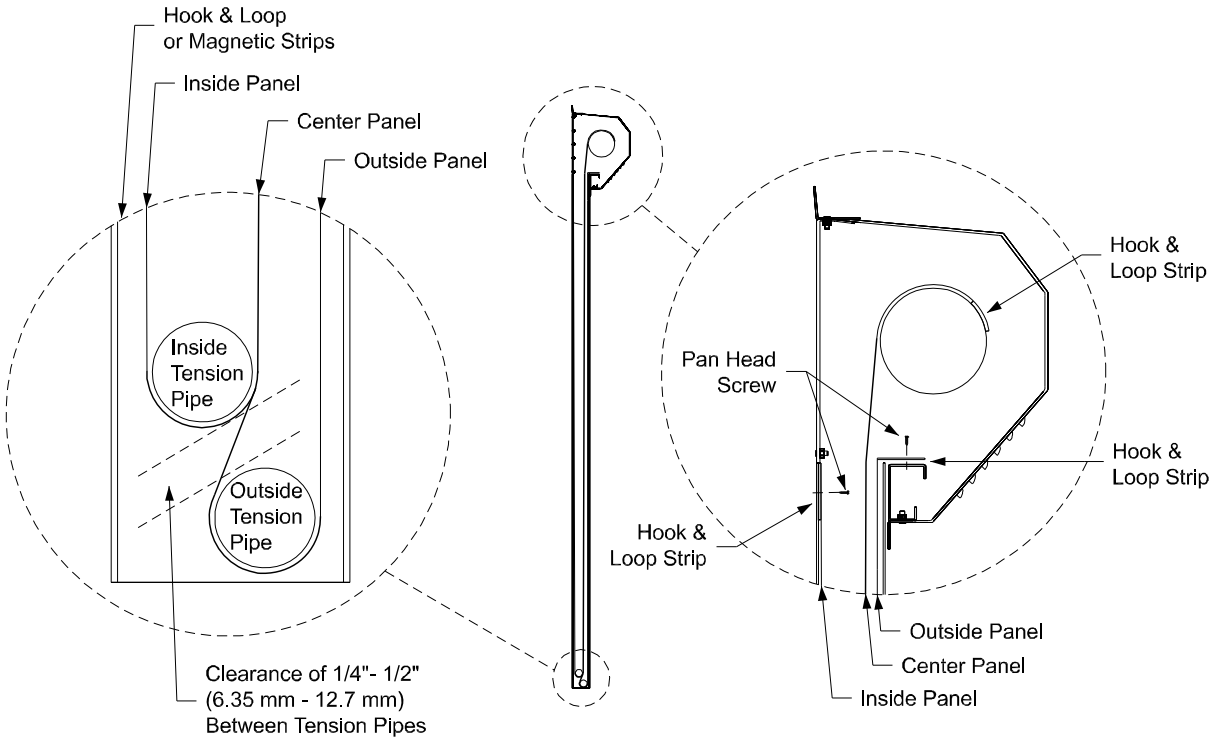
Adjustment Procedures

The clearance between the tension pipes can be adjusted by raising or lowering the door panels. Each door has three panels: (1) the inside panel (panel facing the inside of building) is attached to the back plate. (2) The center panel is attached to the roller. (3) The outside panel (facing the outside of building) is attached to the front bar. Adjustments are made to the inside panel and/or the outside panel.

NOTE: The door must be in the closed position for panel adjustments. Ensure the panels are not damaged while removing or reinstalling the nuts and screws.

To adjust the height of the outside tension pipe, raise or lower the outside door panel by detaching the panel hook & loop from the front bar, and raising or lowering the panel. Then re-attach the panel loop to the hook on the front bar. Be sure to keep the tension pipe level during this procedure.

To adjust the height of the inside tension pipe, raise or lower the inside door panel by detaching the panel hook & loop from the back plate, and raising or lowering panel. Then re-attach the panel loop to the hook on back plate. Be sure to keep tension pipe level during this procedure. Install Tek screws through the panel material and into the back plate to securely hold the material in place.



33 Removal of Existing Panel

1. Lower the panel to the floor.
2. Locate the door controller and turn off the power.
3. Remove and lower the cover from the door head unit.
4. Locate the 3 fabric sheets that make up the entire door curtain. See **Diagram 34A, Detail 2, Page 51**. The center panel has a hook & loop strip across the top. The center panel does not have magnets or hook & loop strips on the sides. The inside and outside panels have hook & loop strips at the top, and magnets or hook & loop strips along the sides of the panels. The outside panel may be identified as the longer of the two panels.
5. Mark the end of each sheet and along the edge of each sheet with a marker. This will prove vital to ensure you install the new panel sheets at the proper locations to alleviate major curtain adjustment.
6. Remove the 3 screws from each sheet (front, center, and back). **See Diagram 34A, Detail 2, Page 51. D**etach the hook & loop area of each sheet left to right, starting with front, then center, and then back sheets. Let the panel/curtain fall to the floor.

NOTE: If the door is equipped with an egress assembly you will see the yellow egress strap attached to a triangle piece of material with a quick-link connector. If it does not have this strap, read the notes below and proceed to step 8.

7. UN-screw the quick-link connector and allow the panel to lower to the floor.

NOTE: Observe how the tension pipes are installed before removal. They *MUST* be re-installed first, with one pipe in the front/outer pocket (closest to outside of the cooler) and the other pipe in the back/inside pocket. Locate the back pipe behind the triangle piece that is attached to the yellow strap. The front/outer pipe will always hang lower than the back/inside pipe.

NOTE: Failure to install properly could result in door sticking up.

8. Slide the 2 tension pipes out of their respective pockets. Remove the panel/curtain away from the door. You are now ready to install the new panel/curtain.

34 Installation of Replacement Panel

1. Place the new panel in front of the door opening and make sure the part number label is on the left side.

NOTE: If door is equipped with egress system yellow strap ensure that the strap is positioned to the front side of the back/inside panel to allow connection to the triangle piece of material with the quick-link connector.

2. Take the back/inside curtain (**Diagram 34A, Detail 1 & 2, Page 51**) and attach the material to the backplate placing material on the marks that were created during removal of old panel.

3. After the inside curtain has been attached, attach the egress strap (if equipped) to the triangle piece of material with the quick link connector.

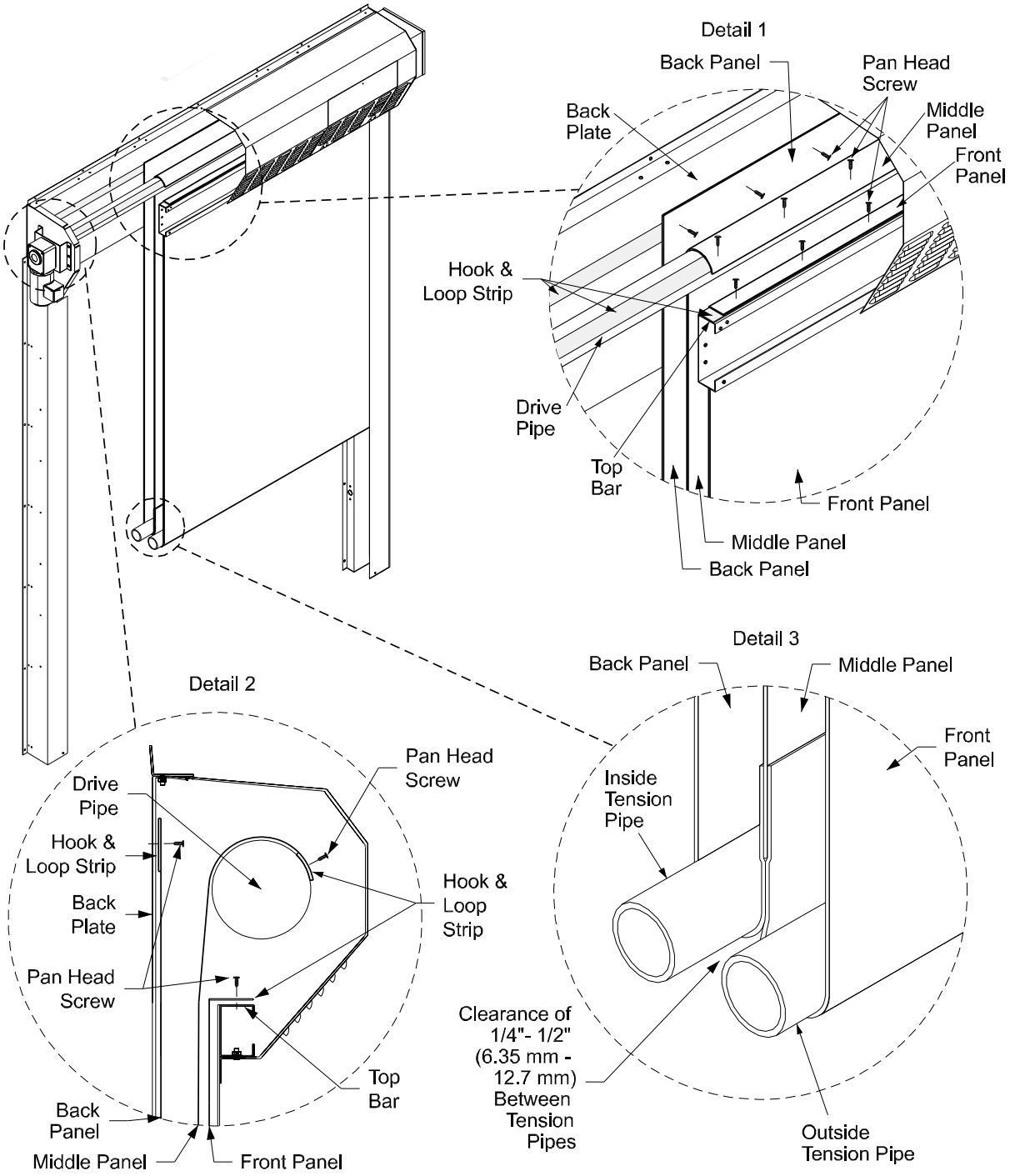
4. Take the outside curtain (**Diagram 34A, Detail 1 & 2, Page 51)** and attach to the top bar.

NOTE: Ensure all roller switches (home, safety and leading edge) are pointing down.

5. After the curtain has been secured, install the bottom pipes in the curtain as shown in **Diagram 34A, Detail 3, Page 51**. The front pipe should be installed first. Then the back pipe is placed in front of inside panel but behind the yellow strap and triangle piece of material. It should be above the front pipe

6. Ensure all panels are inside the tracks on both sides. Set the controller to JOG mode by holding both arrows at the same time until you see "JOG" on the display. JOG up and down, using up and down arrows to straighten the panel. Exit JOG mode by holding both arrows at the same time. Run the door as normal.

Diagram 34A Curtain Installation



35 Removing and Replacing Floating Magnets or Velcro

1. Open the door to its upper limit. It will be necessary to raise the panel as high as it will go into the head unit. Refer to manual operation of associated operator as shown previously in this manual. This will make it easier for you to remove and re-install the “Floating Magnets or Velcro and PIM Plate Assemblies” from the left and right side tracks (**Diagram 35A**).

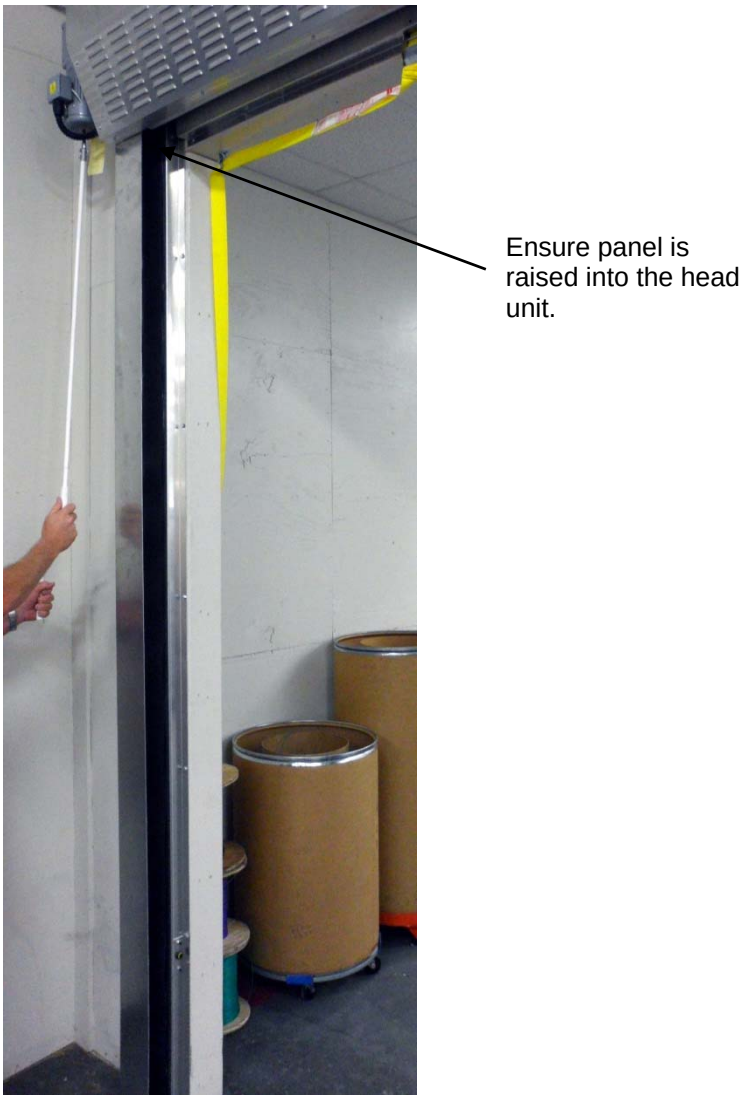


Diagram 35A

! Warning!

Ensure power is turned “OFF” to prevent door movement while removing PIM Plate Assembly and Floating!

2. After you have raised the panel into the head unit, you can remove all of the PIM Plate nuts from both sides. Then remove the PIM plate and floating assemblies from their associated tracks (**Diagram 35B and Diagram 35C**).

Diagram 35B

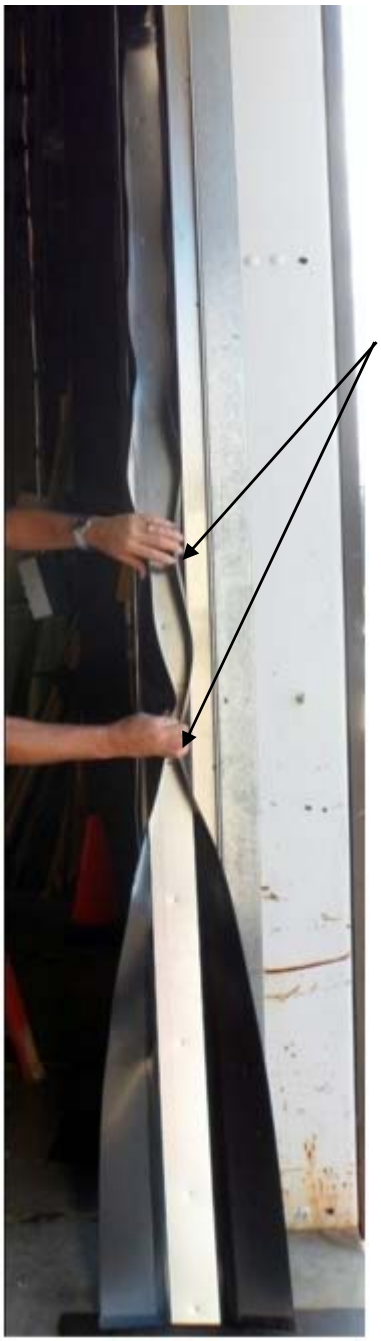
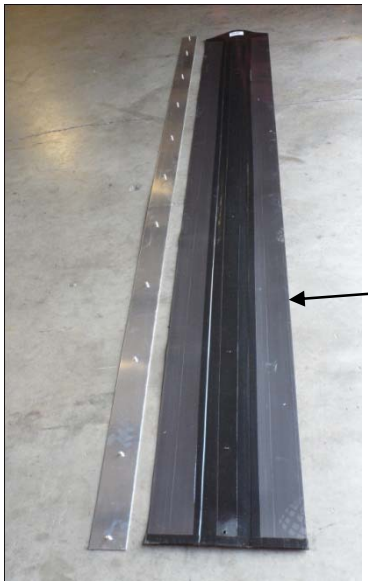


Diagram 35C

3. Lay the PIM plate assembly down on the floor and remove the old floating material from the PIM plate. Pay particular attention to the top of the PIM plate assembly. You will notice the material, at the top, has been cut at an angle. It will be necessary to re-install the new piece in the same arrangement as the one you have removed (**Diagram 35D and Diagram 35E**). Get the new piece of floating material. Flip the new piece upside down with the magnets or Velcro toward the floor. Align the pre-drilled holes of the material with the PIM bolts on the PIM plate assembly. You might find it easier to start at one end with the first PIM bolt, insert it, and then move to the other end slightly lifting the PIM plate in a bend to insert the PIM bolt at that end (**Diagram 35F**). Lay the assembly back down on the floor flat. This will slightly pull the material allowing the remaining holes to align properly. Proceed to insert the rest of the PIM bolts in their proper holes. Repeat the same steps for installing the floating to PIM plate for the other side.

Diagram 35D

Remove the “old” floating and discard. Re-install the “new” floating



Lay the new floating next to the PIM plate with top of floating (Angled Cut) material to top of PIM plate. Flip the floating over the PIM Plate with magnets or Velcro against the floor then attach the floating over the PIM Plate Bolts

Diagram 35E

Re-install the “new” floating. It may be necessary to bend one end of the PIM plate up to attach onto the end PIM bolt.

Diagram 35F

3. Grab and hold the PIM plate assembly and floating in a manner that will prevent the floating material from coming off of the PIM bolts. Re-install the PIM plate assembly in the track starting with the top PIM bolt. Align the PIM bolts with the holes in the track (**Diagram 35G**). Firmly press the PIM bolts into their associated holes and attach the PIM nuts to the PIM bolts but do not tighten until all bolts have been installed. After all of the PIM bolts have been installed, tighten the nuts pulling the PIM plate firmly against the track (**Diagram 35H**).

Squeeze the floating around the PIM Plate and push the top in the track assembly first. Align all PIM bolts with holes in the track assembly

Diagram 35G

After all of the PIM bolts have been installed, tighten the nuts pulling the PIM plate firmly against the track

Diagram 35H

! Warning!

Do not over tighten!

4. Repeat steps 1-4 above for opposite side.
5. It will be necessary to lower the panel, down, out the head unit (**Diagram 35I**). Refer to manual operation of associated operator as shown previously in this manual. This will lower the panel below the upper limits and turn off the safety switch to allow normal operation.
6. OPEN" and "CLOSE" the door several times to ensure smooth operation and proper setting of upper and lower limits

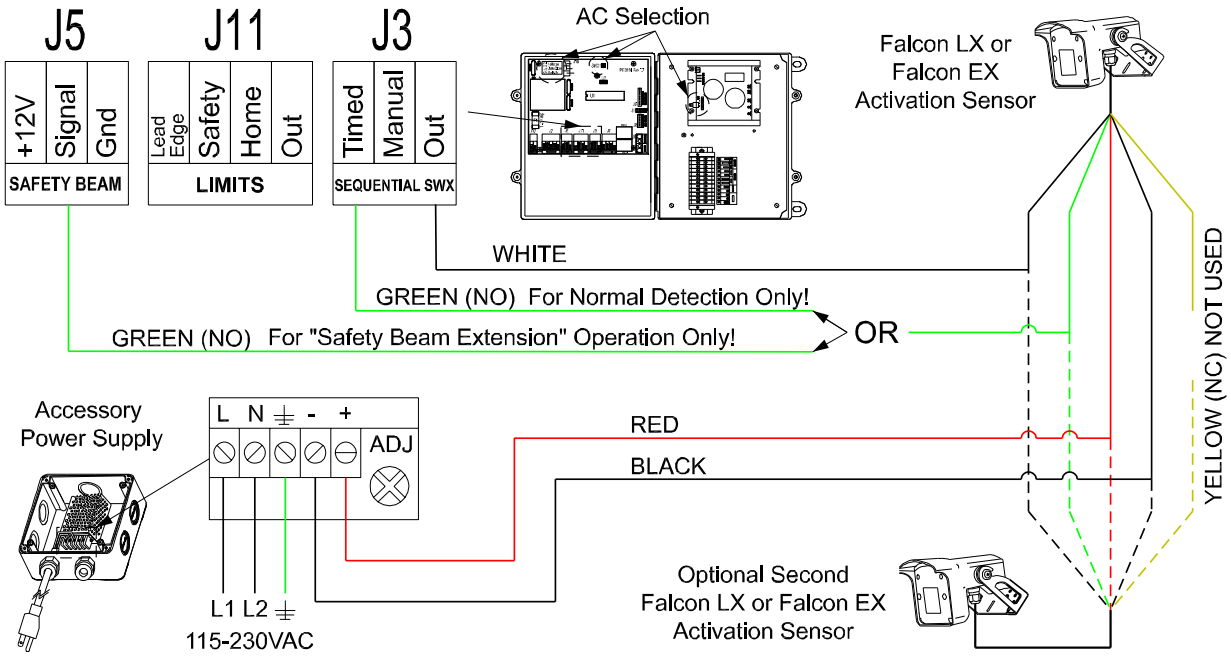
Diagram 35I

36 Wiring Optional Accessories

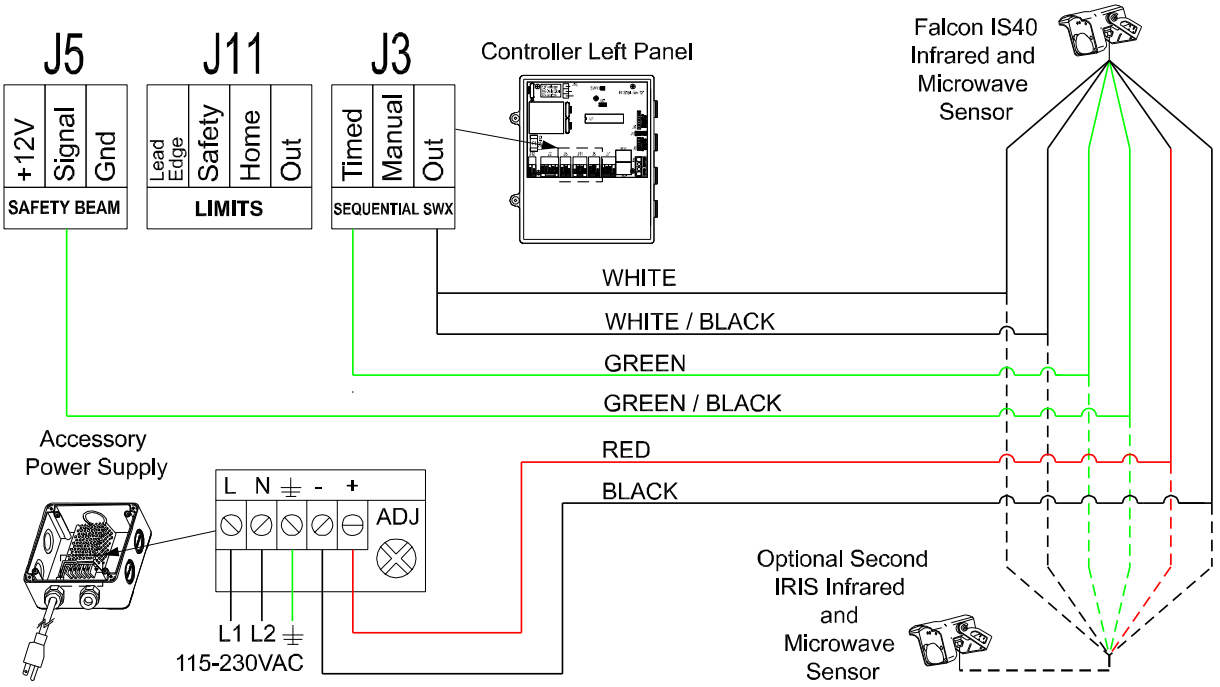
Motion Detectors, Infrared Sensors and Loop Sensors are optional accessories that can improve the efficiency and performance of your RollSeal Door. Sensors can also help prevent damage to the RollSeal Door by preventing the door from closing while lifts or objects are present in the vicinity.

Refer to the unit Owner's Manual for more information on installation, set-up and operation.

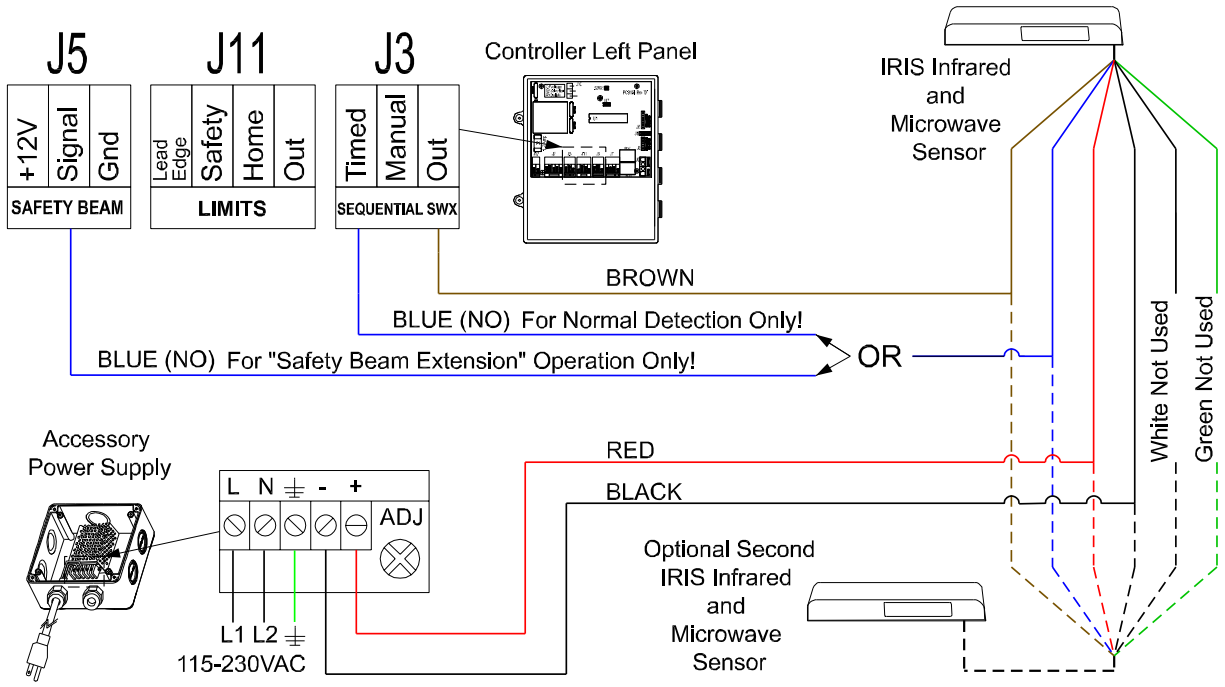
36.1 Wiring Falcon XL and EX Motion Detectors



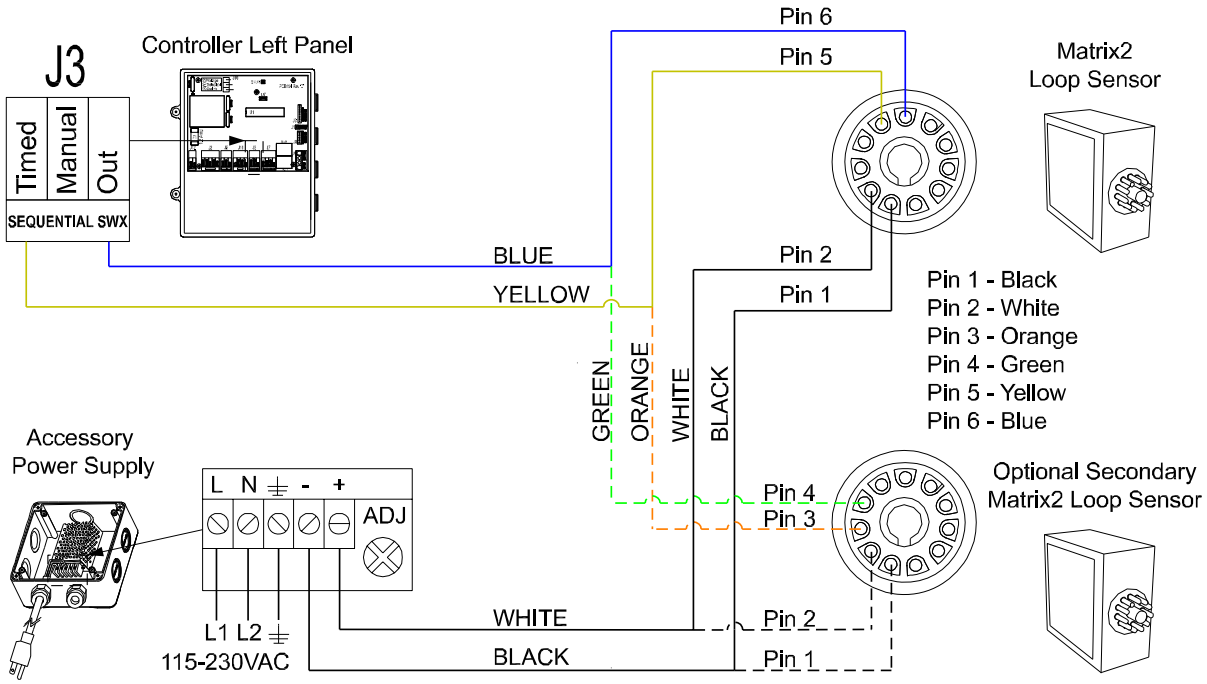
36.2 Wiring Falcon IS40 Infrared and Microwave Sensor



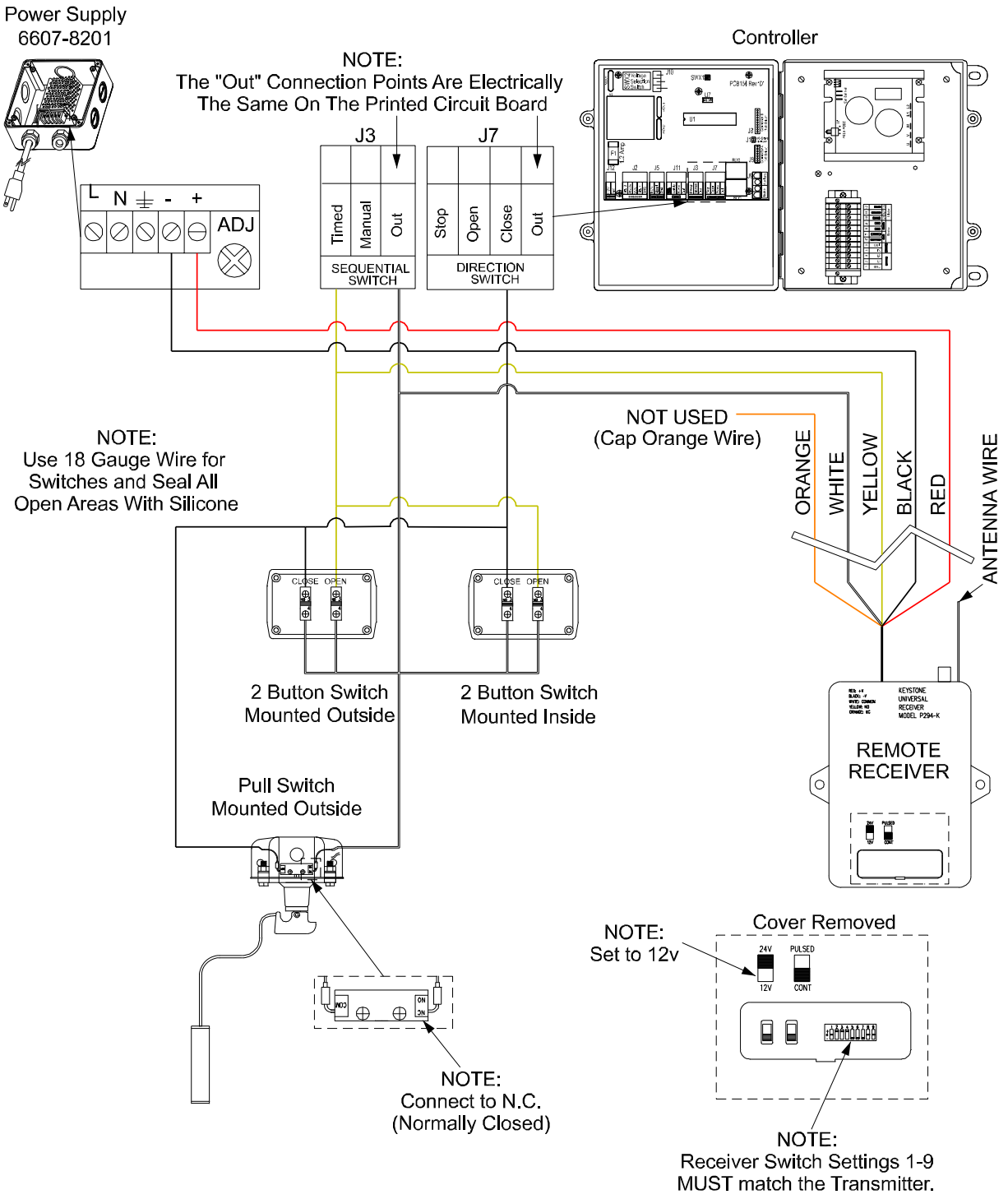
36.3 Wiring the IRIS Infrared and Microwave Sensor



36.4 Wiring the Matrix2 Loop Sensor



36.5 Wiring Switches and Remote Receiver



37 Replacement and Optional Parts

37.1 SC-325 Controller

SC-325 Controls, Parts, and Accessories

Part Number	Description	Notes
Controller		
6607-8057	SC-325-V01-115	Use with RS-500 Doors ONLY
6607-8056	SC-325-V02-0 (Includes V2 Drive & Brake Module)	Use with RS-500 Doors ONLY
6607-8058	SC-325-V01-000-W01 (Includes W01 Switch Wiring Option with Conduit)	Use with RS-500 Doors ONLY
6607-8060	SC-325-V01-115-PLUS (Includes Prewired Controller)	Use with RS-500 Doors ONLY
6607-8061	SC-325-V01-230-PLUS (Includes Prewired Controller)	Use with RS-500 Doors ONLY
Drive Board Assemblies		
6407-6082	Use with SC-325 Controller 6607-8057, 6607-8058, 6607-8060, and 6607-8061 /PCB AC DriveKBVF-22D w/QA V1 (V1 Drive)	Use with SC-325 Controllers ONLY.
6407-6083	Use with SC-325 Controller 6607-8056 /PCB AC DriveKBVF-22D w/QA V2 (V2 Drive)	Use with SC-325 Controllers ONLY.
1902-4701	Drive Cable Assembly	
Chips		
3701-6069	PIC SC-325 RS Door Control V0.xx (Processor)	Use with SC-325 Controllers ONLY.
3540-0143	Double ‘E’ Chip	
Fuses		
3010-3001	FUSE 1.2 AMP 5mmX20mm slow blow (F1)	Located on PCB 154
3010-2140	FUSE 10 AMP 1/4X1-1/4 TD Main Fuse (Black Holder)	Use with SC-325 Controllers ONLY.
Brake Module & Rectifier		
6407-6088	Brake Module (Use with SC-325 Controller 6607-8056)	
3017-5052	Brake Rectifier (Use with 115 VAC Doors)	
3017-5050	Brake Rectifier (Use with 230 VAC Doors)	
Switches		
3001-2865	Main Power Switch w/toggle tabs	
Door Assembly		
6407-0618	/DOOR ASSY SC-325	Use with SC-325 Controllers ONLY.

37.2 SC-650 Controller

SC-650 Controls and Parts

Control	Description	Notes
6607-8100	SC-650-V01-0	Use with RS-600 Doors ONLY
6607-8101	SC-650-V02-0 (Includes V2 Drive)	Use with RS-600 Doors ONLY
6607-8102	SC-650-V01-115-PLUS	Use with RS-600 Doors ONLY
6607-8103	SC-650-V01-230-PLUS	Use with RS-600 Doors ONLY

Drive Board		
6407-6086	/PCB AC DriveKBVF-23D w/QA V1 (V1 Drive)	Use with SC-650 Controllers ONLY
6407-6087	/PCB AC DriveKBVF-23D w/QA V2 (V2 Drive)	Use with SC-650 Controllers ONLY
1902-4701	Drive Cable Assembly	

Chips		
3701-6071	PIC SC-650 RS Door Control V0.xx (Processor)	Use with SC-650 Controllers ONLY

Fuses		
3010-3001	FUSE 1.2 AMP 5mmX20mm slow blow (F1)	Located on PCB 154
3010-2994	FUSE 15 AMP 1/4X1-1/4 TD Main Fuse (Black Holder)	Use with SC-650 Controllers ONLY.

Brake Module & Rectifier		
6407-6088	/PCB Brake Module DBVF vr.9598	Use with SC-650 V1 & V2 Controllers
3017-5050	/A200 Brake Rectifier	Use with 230 volt AC Doors

Switches		
3001-2865	Main Power Switch w/toggle tabs	

Door Assemblies		
6407-0620	/DOOR ASSY SC-650	Use with SC-650 Controllers ONLY

37.3 Door Replacement Parts and Accessories

RollSeal Parts, and Accessories

Part Number	Description	Notes
Cable and Harness Assemblies		
1903-3053	HRNS RS-500 and RS-600 DC	
1903-3016	HRNS RS-500 and RS-600 AC	
1903-3064	HRNS RS-500 DC (Short)	
1903-3063	HRNS RS-500 and RS-600 AC (Short)	
1902-4701	Drive Cable Assembly	

Encoder		
6407-1565	Encoder Board	

6421-1404	Encoder Assembly	
6450-2008	Encoder Bracket Kit	

Safety Beam		
6421-9040	Emitter (motor side)	
6421-9041	Receiver	

Door Switches		
1903-3050	Safety Switch	
1903-3051	Leading Edge Switch	
1903-3052	Home Switch	

Door Replacement Parts		
0401-7728	Leading Edge Switch Bracket	

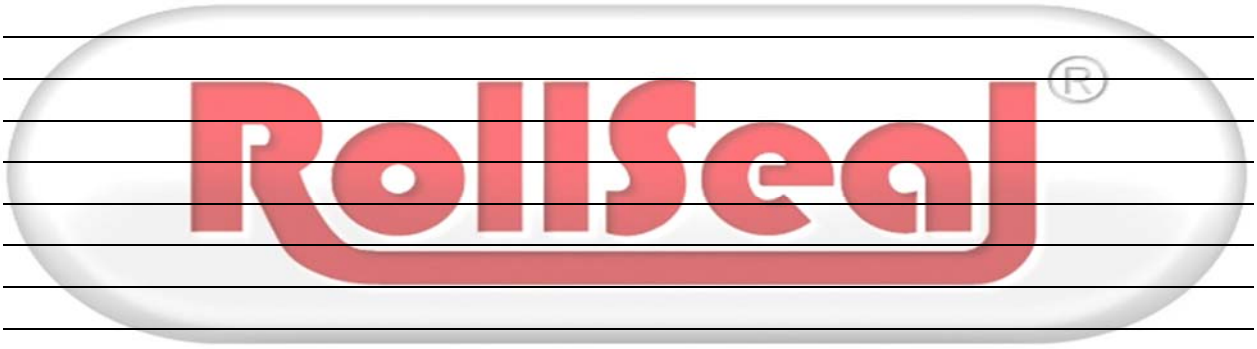
Power Supply and BackUp Units		
3595-0109	Power BackUp 115 VAC	
6607-8200	Accessory Power Unit 12VDC 4.5A	
6607-8201	Accessory Power Unit 12VDC 1A	
6607-8202	Battery BackUp 230VAC 850VA	
6607-8203	Battery BackUp 115VAC	

Motion Detectors and Sensors		
3595-0108	Falcon XL	3595-0103
3595-0006	Falcon EX	3595-0104
3595-0127	Falcon IS40	
3595-0125	IRIS	
3595-0110	Matrix2	

Terminal Blocks		
3006-5076	2 Position Terminal Block	
3006-5077	3 Position Terminal Block	
3006-5078	4 Position Terminal Block	
3006-5079	5 Position Terminal Block	
3006-2984	2 Pin Mini Jumper	
Part Number	Description	Notes
Accessory Switches		
3001-7006	2-Button Close/Open Switch	
3001-7000	3-Button Close/Open/Stop Switch	
3001-6000	Ceiling Pull Switch CP1 SPST	
3001-6012	Ceiling/Wall Pull Switch	
6450-7640	Push Button Switch Kit	

Remote Operation		
3595-0105	Remote Receiver	
3595-0106	Remote Transmitter	

Manuals		
4801-5154	D5/6 Series Doors	


RollSeal®